4.3 BIOLOGICAL RESOURCES

Acronyms

AMSL	Above mean sea level
BMP	Best Management Practice
BRTR	Biological Resources Technical Report
BSA	Project Biological Study Area
CCH	Consortium of California Herbaria
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dbh	Diameter at breast height
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FE	Federally Endangered
FT	Federally Threatened
GPS	Global positioning system
MBTA	Migratory Bird Treaty Act
MCVII	A Manual of California Vegetation
NPPA	Native Plant Protection Act
O&M	Operations and maintenance
R4SBA	Riverine, Intermittent, Streambed, Temporary Flooded
RWQCB	Regional Water Quality Control Board
SA	Special Animal
SCLF	Scholl Canyon Landfill
SE	State Endangered
SEA	Significant Ecological Area
SFP	State Fully Protected
SSC	Species of Special Concern
ST	State Threatened
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WDR	Waste Discharge Requirements
WEAP	Worker Environmental Awareness Program
WL	Watch List

4.3.1 Environmental Setting

This section describes the effects to biological resources that may result from the implementation of the proposed Project. An analysis was conducted within a 235-acre Project Biological Study Area (BSA), which includes the southern and western sections of the Scholl Canyon Landfill (SCLF) and adjacent lands proposed for the development of the proposed Project components and a surrounding 300-foot buffer area. The analysis included field evaluations, which involved reconnaissance-level surveys, habitat assessments, and focused rare plant surveys, as well as a literature review to determine special-status plants, wildlife, and vegetation communities that have been documented within the vicinity of the proposed Project. A complete Biological Resources Technical Report (BRTR) can be found in Appendix C.

In addition, this section includes vegetation communities and land cover types within the proposed Project area to characterize the botanical resources and potential for wildlife to occur on the proposed Project site. Biotic habitats suitable for the occurrence of plant and wildlife species of special-status (State and Federally listed threatened and endangered species, Federal candidate species, California Native Plant Society List species, California Fully Protected species, and California Species of Special Concern) are also described.

4.3.1.1 Baseline Data Collection Methodology

Stantec biologists conducted several surveys within the BSA to evaluate potential Project impacts on biological resources. Field evaluations were conducted on October 21, 2015, November 3, 2015, January 15, 2016, and July 11, 2017, with focused rare plant surveys occurring on January 15, April 15, and September 8, 2016. The results of these surveys were presented in a BRTR prepared by Stantec, dated July 20, 2017.

An additional reconnaissance-level survey was completed on April 29, 2019, which was proceeded by preliminary literature review of resources relevant to environmental conditions within the BSA, including the 2017 BRTR. The field assessment included a non-protocol[24] survey for plants, wildlife, and other biological resources intended to detect the presence of special-status plant and wildlife species, including nesting birds. The survey was conducted on foot within the BSA where accessible based on terrain, vegetative cover, and accessibility.

4.3.1.2 Literature Review

A literature search focused on the BSA was completed prior to the field survey. The BSA is located within the United States Geological Survey (USGS) Pasadena, California, 7.5-minute topographic quadrangle. A search of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) was conducted for this quadrangle to determine whether special-status plants, wildlife, and

[24] Outside of the previous seasonally timed surveys and did not involve multiple visits to the project area throughout the season "in order to properly capture the floristic diversity at a level necessary to determine if special status plants are present (CDFW 2009).

vegetation communities have been documented within the vicinity of the BSA[25]. The following eight adjacent quadrangles were also included in the database search to encompass potential occurrences of special-status species in the region surrounding the BSA:

- Sunland
- Condor Peak
- Chilao Flat
- Burbank
- Mount Wilson
- Hollywood
- Los Angeles
- El Monte

Additional data regarding the potential occurrence of special-status species and policies relating to these special-status natural resources were gathered from the following sources:

- State and federally listed endangered and threatened animals of California[26];
- Special Animals List[27];
- List of California Sensitive Natural Terrestrial Communities[28];
- Inventory of Rare and Endangered Vascular Plants of California[29]; and
- Consortium of California Herbaria (CCH, 2018).

4.3.1.3 Habitat Assessment and Biological Surveys

Site Reconnaissance and Wildlife Surveys

In order to document the environmental conditions, present within the BSA, Stantec conducted a habitat assessment and reconnaissance-level survey on April 29, 2019; Stantec previously conducted reconnaissance-level surveys of the area in October/November 2015, January/April/September 2016, and July 2017. The primary goal of the surveys was to identify and assess habitat that may be capable of supporting special-status plant or wildlife species and to determine the potential need for additional focused surveys for special-status resources. Biologists also recorded all incidental plant and wildlife observations.

Experienced field biologists walked transects through accessible portions of the BSA at an average pace of approximately 1.5 kilometer/hour while visually scanning for signs and sounds of wildlife including songs and calls. Biologists halted approximately every 50 meters to listen for wildlife or as necessary to identify, record, or enumerate any detected species. Terrestrial insects and other invertebrates were searched for on flowers and leaves, under loose bark, and under stones and logs on the ground throughout the BSA. Randomly selected areas within appropriate micro habitats (e.g., leaf litter, woody

[25] CDFW (California Department of Fish and Wildlife). 2019. RAREFIND database ed.3.1.1. Electronic database managed by the California Natural Diversity Data Base, Wildlife Data and Habitat Analysis Branch, California Department of Fish and Wildlife. Sacramento, CA.
[26] CDFW. 2018. State and Federally Listed Endangered and Threatened Animals of California. August.
[27] CDFW. 2018b. Special Animals List. November.
[28] CDFW. 2018c. California Natural Diversity Data Base List of California Sensitive Natural Terrestrial Communities. https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities
[29] CNPS (California Native Plant Society). 2019. Inventory of rare and endangered plants. California Native Plant Society. Sacramento. (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org. Accessed May 2019.

debris piles, etc.) were hand raked or visually inspected to determine the presence/absence of gastropods, reptiles, small mammals, and amphibians. Species present were identified and recorded through direct visual observation, sound, or their sign (e.g., scat, tracks, etc.) and all potential refugia sites search were returned to their original state after inspection. Species identifications conform to the most up-to-date field guides and technical literature.

The surveys were conducted during the recognized bird breeding/nesting season[30] and time of day when resident and migratory birds would be expected to be present and potentially exhibiting nesting activity, where small mammals would be active and detectable visually or by sign, and above-ground amphibian and reptile movement would generally be detectable. However, it should be noted that some wildlife species and/or individuals may have been difficult to detect due to their elusive nature, cryptic morphology, or nocturnal behavior. Surveys were conducted during daylight hours when temperatures were such that reptiles and other wildlife would be active (i.e., between 65-95° Fahrenheit).

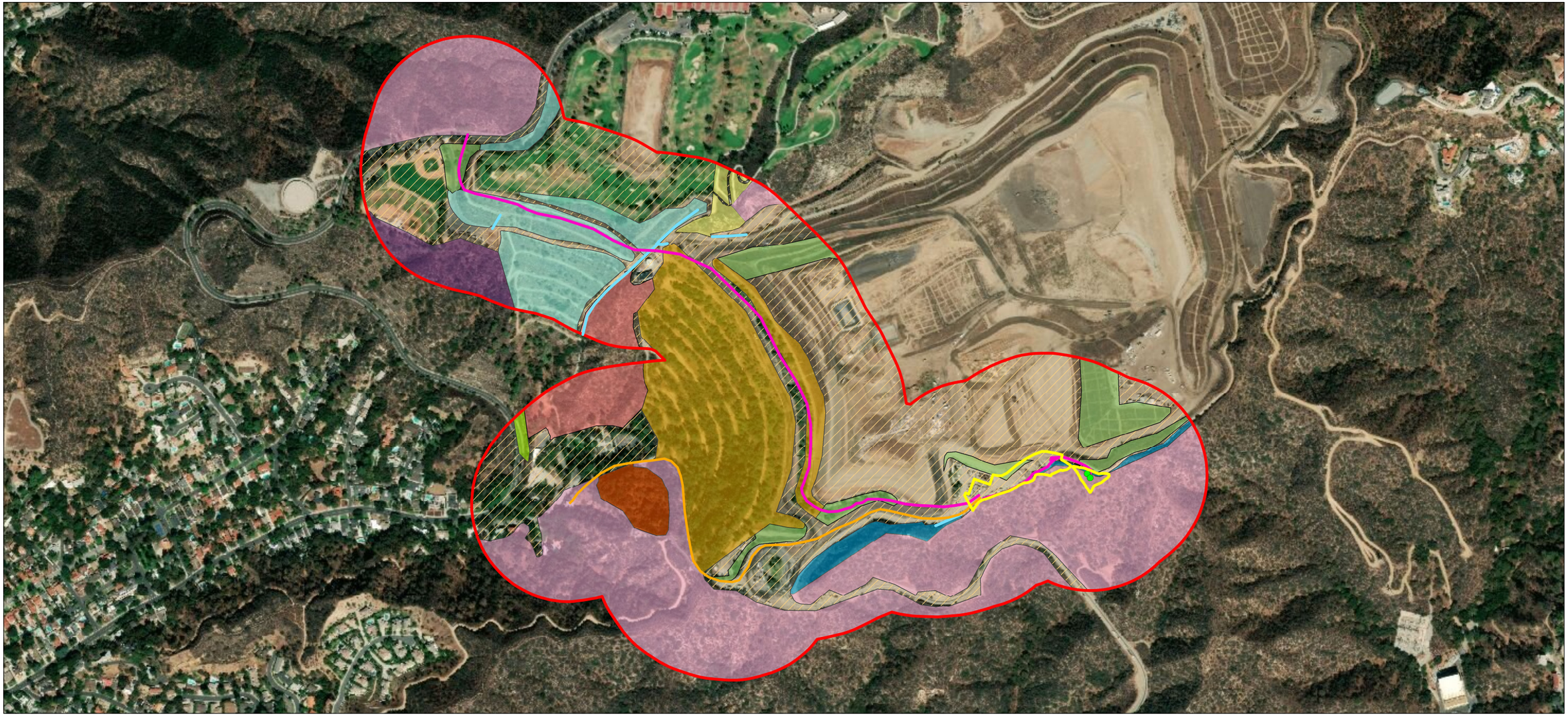
Vegetation Mapping

Vegetation mapping was conducted concurrently with the reconnaissance survey; please refer to **Figure 4.3-1** for Vegetation Communities and Land Coverage Types. Vegetation descriptions and nomenclature are based on Sawyer et al. (2009), where applicable, and have been defined at least to the alliance level. Vegetation maps were prepared by recording tentative vegetation type boundaries over recent aerial photograph base maps using the Esri® Collector for ArcGIS app on an Apple® iPad® coupled with a Bad Elf® GNSS Surveyor sub-meter external global positioning system (GPS) unit. Mapping was further refined in the office using ArcGIS (version 10.4) with aerial photograph base maps with an accuracy of one foot. Most boundaries shown on the maps are accurate within approximately three feet; however, boundaries between some vegetation types are less precise due to difficulties interpreting aerial imagery and accessing stands of vegetation.

Vegetation communities can overlap in many characteristics and over time may shift from one community type to another. Note also that all vegetation maps and descriptions are subject to variability for the following reasons:

* In some cases, vegetation boundaries result from distinct events, such as wildfire or flooding, but vegetation types usually tend to integrate on the landscape, without precise boundaries between them. Even distinct boundaries caused by fire or flood can be disguised after years of post-disturbance succession. Mapped boundaries represent best professional judgment, but usually should not be interpreted as literal delineations between sharply defined vegetation types.
* Natural vegetation tends to exist in generally recognizable types, but also may vary over time and geographic region. Written descriptions cannot reflect all local or regional variation. Many (perhaps most) stands of natural vegetation do not strictly fit into any named type. Therefore, a mapped unit is given the best name available in the classification system being used, but this name does not imply that the vegetation unambiguously matches written descriptions.
* Vegetation tends to be patchy. Small patches of one named type are often included within larger stands mapped as units of another type.

[30] February 1 – September 15



Biological Study Area

Potentially Jurisdictional Drainage Features

Vegetation Communities & Landcover Types

- Annual Brome Grassland
- Black Sage Scrub
- California Buckwheat Scrub
- California Sagebrush - California Buckwheat Scrub
- California Sagebrush Scrub
- Chamise Chaparral
- Coast Live Oak Woodland
- Fountain Grass Swards
- Laurel Sumac Scrub
- Ornamental Woodland
- Disturbed/ Developed

Project Components

- Proposed Power Plant Facility Boundary
- Proposed Water Pipeline
- Proposed Gas Pipeline
- New Water Tank

Notes

1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

2. Background: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 170 340 metres

(At original document size of 11x17)
1:8,941

N

Stantec

Project Location
Glendale, Ca

Prepared by DL on 2019-05-2
TR by RB on 2019-05-17
IR Review by SR on 2019-05-22

Client/Project
185804356

City of Glendale Water and Power
Biogas Renewable Generation Project
Environmental Impact Report

Figure No.
4.3-1

Title
Vegetation Communities & Land Cover Types

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Regional Setting

The proposed Project is located within the City of Glendale in Los Angeles County, CA, just south of Flint Peak in the San Rafael Hills to the north of California State Route 134. The BSA ranges in elevation from approximately 940 feet (~286 meters) above mean sea level (AMSL) along Glenoaks Canyon Drive at the western boundary of the BSA to 1,530 feet (~466 meters) AMSL at its southeastern extent. The majority of the lands within the BSA are developed with active and reclaimed areas of the landfill occupying a significant portion of the BSA and other urban infrastructure including residential developments, roadways, and recreational open space. The slopes along the northern and southern edges of the BSA are undeveloped and support swathes of relatively undisturbed native habitat as described in further detail below.

The lands immediately surrounding the BSA primarily consist of open space within the San Rafael Hills, though residential developments about the SCLF to the west and northeast. Beyond the buffer of relatively undeveloped hillside encircling the SCLF, the region is significantly built out with urban infrastructure, thus creating a small "island" of the San Rafael Hills that includes areas of undisturbed native habitat.

Habitat in the BSA includes a variety of upland communities, native and ornamental woodlands, and developed/disturbed lands. Predominantly located within the western and southern portions of the BSA upland scrub plant communities are dominated by black sage (*Salvia mellifera*), laurel sumac (*Malosma laurina*), and chamise (*Adenostoma fasciculatum*). Along the west-facing slope of the landfill is a reclaimed area that has been planted with a variety of ornamental trees including Peruvian pepper (*Schinus molle*), southern silky oak (*Grevillea robusta*), fan palm (*Washingtonia robusta*), and eucalyptus (*Eucalyptus* spp.).

Existing Conditions

Vegetation

Generally, mapping and description of plant communities follows the classification system described in the second edition of A Manual of California Vegetation (MCVII) (Sawyer et al., 2009). As defined in MCVII, an alliance is defined as "a category of vegetation classification which describes repeating patterns of plants across a landscape. Each alliance is defined by plant species composition, and reflects the effects of local climate, soil, water, disturbance, and other environmental factors." Vegetation communities and land cover types mapped within the BSA are presented below in **Table 22**. It should be noted that due to changes in the nomenclature for some of the vegetation communities mapped within the BSA, as well as minor variations in site conditions, the names of mapped vegetation community and land cover types from the 2019 surveys do not always match those from the 2017 surveys. **Table 22** presents a cross-listing of vegetation communities and land cover types for ease of comparison (where applicable).

Species' scientific and common names correspond to those described in the second edition of the Jepson Manual (Baldwin et al., 2012). Within the BSA, nine plant communities defined by Sawyer et al. (2009) and two additional land cover types, classified as ornamental woodland and disturbed/developed land were mapped. Characteristics of these land cover types are summarized below, and their locations are depicted in Appendix C.

Table 22 Project Temporary and Permanent Site Modification

Vegetation Community / Land Cover Type		Total Acres in Survey Area	
2019 Survey	**2017 Survey**	**2019 Survey (Acres)**	**2017 Survey (Acres)**
Annual Brome Grassland	--	10.48	--
Black Sage Scrub	California Encelia-Black Sage Scrub	8.0	5.67
California Buckwheat Scrub	--	1.75	--
California Sagebrush Scrub	California Sagebrush Scrub	0.44	0.31
California Sagebrush-California Buckwheat Scrub	California Buckwheat Scrub	2.84	7.11
Chamise chaparral	Scrub Oak -Chamise Chaparral	4.82	2.40
Coast live oak woodland	Coast live oak woodland	2.95	1.3
Fountain Grass Swards	--	14.49	--
Laurel Sumac Scrub	Lauren Sumac Chamise Scrub	70.57	50
Developed / Disturbed	Cleared / Developed	87.18	86.75
Ornamental Woodland	Ornamental/ Non- Native	31.75	39.14
	Total:	**235.27**	**192.68**

Vegetation Community Descriptions

***BROMUS (DIANDRUS, HOREDEACEUS) – BRACHYPODIUM DISTACHYON* HERBACEOUS SEMI-NATURAL ALLIANCE**

Annual brome grasslands

Approximately 10.48 acres of this vegetation community occur within the BSA in several disturbed areas of the SCLF. It was dominated by early successional, non-native, grasses and forbs (90 percent to 100 percent absolute aerial coverage), including invasive species such as red brome ripgut brome (*Bromus diandrus*), (*Bromus madritensis* var. *rubens*), redstem filaree (*Erodium cicutarium*), California burclover (*Medicago polymorpha*), shortpod mustard (*Hirschfeldia incana*), cheeseweed (*Malva parviflora*), wild radish (*Raphanus sativus*), Russian thistle (*Salsola tragus*), and yellow sweetclover (*Melilotus indica*).

Due to changes in site conditions, expansion of the BSA, and differences in nomenclature, this community was not detailed during surveys prior to 2019. During the previous survey efforts, the areas comprising this vegetation community were mapped as a mixture of Cleared/Developed Land, Disturbed, Ornamenta/Non-Native, California Sagebrush Scrub, and California Buckwheat Scrub.

SALVIA MELLIFERA SHRUBLAND ALLIANCE

Black sage scrub

Approximately 8.0 acres of this vegetation community occur within the BSA on a south-facing slope to the west of the SCLF. Black sage (*Salvia mellifera*) is the dominant species with California bush sunflower (*Encelia californica*) being a near co-dominant. Other associated shrub species observed included laurel sumac (*Malosma laurina*), chamise (*Adenostoma fasciculatum*), and the understory in openings within the scrub consisted of native and non-native grasses and forbs common to the BSA.

ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE

California buckwheat scrub

Approximately 1.75 acres of this habitat type occur in a small area between the SCLF and the golf course to the north. This community appears to occupy a previously disturbed area and is likely the result of a revegetation effort. California buckwheat (*Eriogonum fasciculatum*) is the dominant species, but other species observed included bush monkeyflower (*Mimulus aurantiacus*), black sage, California fuchsia (*Epilobium canum*), sawtooth goldenbush (*Hazardia squarrosa*), and the invasive species fountain grass (*Pennisetum setaceum*) and shortpod mustard (*Hirschfeldia incana*).

ARTEMISIA CALIFORNICA SHRUBLAND ALLIANCE

California sagebrush scrub

Approximately 0.44 acre of this habitat type occurs within a small, sloped area near the western edge of the BSA, adjacent to E. Glenoaks Boulevard. This disturbed slope has been revegetated with a planting mixture including California sagebrush (*Artemisia californica*) and California buckwheat, though non-native species have since filled in the opening in the shrub layer, including Russian thistle and annual grasses.

ARTEMISIA CALIFORNICA – ERIOGONUM FASCICULATUM SHRUBLAND ALLIANCE

California sagebrush – California buckwheat scrub

Approximately 2.84 acres of this habitat type occur along thin strips of steep, north-facing slopes adjacent to Scholl Canyon Road along the southern border of the SCLF. Within the BSA, these areas are dominated by California sagebrush and California buckwheat though scrub oak (*Quercus berberidifolia*) is also present in the shrub layer along with non-native species including shortpod mustard and Russian thistle, and annual grasses and fobs in the understory.

ADENOSTOMA FASCICULATUM SHRUBLAND ALLIANCE

Chamise chaparral

Approximately 4.82 acres of this vegetation community occurs on a south facing slope immediately south of the baseball field in the northern portion of the BSA. It is dominated by chamise (*Adenostoma fasciculatum*) with other components of the shrub layer including toyon (*Heteromeles arbutifolia*), California buckwheat, bush monkeyflower, California sagebrush, and hollyleaf cherry (*Prunus ilicifolia*). Understory occupying openings within the shrub layer is comprised primarily of sparse non-native grasses and forbs.

QUERCUS AGRIFOLIA WOODLAND ALLIANCE

Coast live oak woodland

A small area (approximately 2.95 acres) occupied by this plant community occurs on the north-facing slope between the SCLF and residential area to the west, in the western portion of the BSA. Cover in this area is dominated by coast live oak trees (*Quercus agrifolia*), though toyon and laurel sumac shrubs were also observed interspersed throughout this area.

PENNISETUM SETACEUM HERBACEOUS SEMI-NATURAL ALLIANCE

Fountain grass swards

Within the BSA, approximately 14.49 acres of this community occurs on the slopes of a reclaimed area of the SCLF in the northern portion of the BSA, to the south of the golf course. The reclamation process appears to have included revegetation of the slopes with a planting mixture consisting of non-native fountain grass. This perennial species is known to become invasive in southern California and it has come to dominate this area. Native species are also present at lower cover, including California buckwheat, sawtooth goldenbush, and California fuchsia.

Due to changes in site conditions, expansion of the BSA, and differences in nomenclature, this community was not detailed during surveys prior to 2019. During the previous survey efforts, the areas comprising this vegetation community were mapped as a mixture of Cleared/Developed Land, Ornamenta/Non-Native, and California Buckwheat Scrub.

MALOSMA LAURINA SHRUBLAND ALLIANCE

Laurel sumac scrub

This is the most prominent native plant community within the BSA, approximately 70.57 acres of which occur along the hillsides bordering the southern and northern boundaries of the BSA. Laurel sumac is nearly co-dominant with chamise throughout these areas. Other associated species observed included lemonade berry (*Rhus integrifolia*), toyon, purple sage (*Salvia leucophylla*), black sage, deerweed

(*Acmispon glaber*), bush monkeyflower, bigpod ceanothus (*Ceanothus megacarpus*), California brickellbush (*Brickellia californica*), and non-native Russian thistle.

Land Cover Type Descriptions

DEVELOPED/DISTURBED LAND

This classification, which is not described in the MCVII, was used to map the portions of the BSA (approximately 87.18 acres) that are heavily disturbed and/or developed. Developed/disturbed lands include portions of the SCLF and areas occupied by urban infrastructure such as residential developments, recreational areas (baseball diamond and golf course), paved areas such as roads and parking lots, and landscaped areas associated with those developments. In general, these areas are populated with ornamental species or are unvegetated. Where vegetation does occur, it is comprised of ornamental species or ruderal pioneer plant species that readily colonize open disturbed soil and thrive as a result of anthropogenic impacts. Some of the plants present within this cover type included red-stem filaree, tocalote (*Centaurea melitensis*), wild oats (*Avena fatua*), and other non-native grasses and forbs.

ORNAMENTAL WOODLAND

This classification, which is not described in the MCVII, was used to map approximately 31.75 acres within the central portion of the BSA. This west-facing slope is a reclaimed area of the landfill that has been planted with a variety of ornamental trees including Peruvian pepper (*Schinus molle*), southern silky oak (*Grevillea robusta*), fan palm (*Washingtonia robusta*), and eucalyptus (*Eucalyptus* spp.). Other non-native species observed consisted of castor bean (*Ricinis communis*), pampas grass (*Cortaderia selloana*), fountain grass, English plantain (*Plantago lanceolata*), red-stem filaree, lamb's quarters (*Chenopodium album*), Russian thistle, and annual grasses.

Jurisdictional Wetlands/Waters

The National Wetlands Inventory (USFWS, 2018a) has mapped R4SBA (Riverine, Intermittent, Streambed, Temporary Flooded) habitat within the BSA that consist of the headwaters in the hills along its southern boundary (data is dated March 2006). While a formal delineation of jurisdictional waters has not been conducted, the south-facing canyons in this area of the BSA did support conditions indicative of this type of feature, with flows originating from within the BSA entering into the storm drain system adjacent to the Eagle Rock Reservoir and likely ending up in the Arroyo Seco. Additionally, concrete-lined drainage channels were observed throughout the landfill and reclaimed areas that contribute flows to the stormwater conveyance system through Scholl Canyon, downslope of the SCLF, and ultimately into the Verdugo Wash. Based on field observations, the concrete-lined channels and headwaters described above may qualify as United States Army Corps of Engineers (USACE)/ Regional Water Quality Control Board (RWQCB) non-wetland waters of the U.S. and/or California Department of Fish and Wildlife (CDFW) jurisdictional waters.

Common Wildlife

This section describes the common wildlife observed during the reconnaissance survey and species that are expected to occur within the BSA based on habitat characteristics/suitability and species known to occur in the region. A complete list of wildlife observed during the surveys are located in Appendix C.

Invertebrates and Gastropods

A focused insect survey was not performed within the BSA; however, a variety of common insects are known to occur in the area. Habitat conditions in the BSA provide a suite of microhabitat conditions for a wide variety of terrestrial insects and other invertebrates. As in all ecological systems, invertebrates in the BSA play a crucial role in a number of biological processes. They serve as the primary or secondary food source for a variety of bird, reptile, and mammal predators; they provide important pollination vectors for numerous plant species; they act as efficient components in controlling pest populations; and they support the naturally occurring maintenance of an area by consuming detritus and contributing to necessary soil nutrients. The reconnaissance survey of the BSA detected a wide variety of common and non-native invertebrates. Some of the orders identified in the BSAs included *Hemiptera* (true bugs), *Coleoptera* (beetles), *Diptera* (flies), *Lepidoptera* (moths and butterflies), *Hymenoptera* (wasps, bees and ants), and *Orthoptera* (grasshoppers).

Fish

Based on the historic land uses, topography within the BSA, and a lack of suitable aquatic habitat fish are not expected to occur nor were any observed during the 2019 surveys.

Amphibians

Amphibians often require a source of standing or flowing water to complete their life cycle; however, some terrestrial species can survive in drier areas by remaining in moist environments found beneath leaf litter and fallen logs, or by burrowing into the soil. Amphibian species were not observed during the reconnaissance surveys within the BSA. Their potential to occur within much of the BSA is greatly reduced because of the continual disturbance associated with the land use. However, they may inhabit other less disturbed areas within the BSA, such as the slopes surrounding SCLF. Species not observed in the BSA but known to occur in the region include the Baja California treefrog (*Pseudacris hypochondriaca*), western toad (*Anaxyrus boreas*), and the non-native bullfrog (*Lithobates catesbeiana*). These species all require aquatic habitat for all or part of their life cycle, which is only present during and immediately after substantial rain events, and therefore are not likely to occur within the BSA outside of the rainy season, generally from November through March. These species are highly cryptic and often difficult to detect. Downed logs, bark, and other woody material in various stages of decay (often referred to as coarse woody debris), present in a limited section of the BSA, could provide shelter and feeding sites for a variety of wildlife, including amphibians and reptiles.[31] [32]

[31] Maser, C. and J.M. Trappe, tech eds. 1984. The seen and unseen world of the fallen tree. Gen. Tech. Rep. PNW-164. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 56 pp.
[32] Aubry, K. B., L. L. C. Jones, and P. A. Hall. 1988. Use of woody debris by plethodontid salamanders in Douglas-fir in Washington. Pages 32-37 in R. C. Szabo, K. E. Severson, and D. R. Patton, technical coordinators. Management of amphibians, reptiles and

Reptiles

The number and type of reptile species that may occur at a given site is related to a number of biotic and abiotic features. These include the diversity of plant communities, substrate, soil type, and presence of refugia such as rock piles, boulders, and native debris. Weather conditions were favorable during the survey for reptile activity.

The only reptiles observed during the site reconnaissance were a single western fence lizard (*Sceloporus occidentalis*) and western rattlesnake (*Crotalus viridis*). Although not observed, several other common reptiles likely occur in the BSA. Many reptile species, even if present, are difficult to detect because they are cryptic and their life history characteristics (e.g., foraging, thermoregulatory behavior, fossorial nature, camouflage etc.) limit their ability to be observed during most surveys. Further, many species are only active within relatively narrow thermal limits, avoiding both cold and hot conditions, and most take refuge in microhabitats that are not directly visible to the casual observer, such as rodent burrows, in crevices, under rocks and boards, and in dense vegetation where they are protected from unsuitable environmental conditions and predators.[33]. In some cases, they are only observed when flushed from their refugia. Although other reptiles were not detected, suitable habitat conditions for a number of common reptiles were observed within the BSA at the time of the survey. Other species that may occur in limited areas within the BSA based on the presence of suitable habitat include western skink (*Plestiodon skiltonianus*), southern alligator lizard (*Elgaria multicarinata*), and San Diego gopher snake (*Pituophis catenifer annectens*).

Birds

Birds were identified by sight and sound and were observed throughout the BSA. Some of these included mourning dove (*Zenaida macroura*), California towhee (*Melozone crissalis*), house finch (*Haemorhous mexicanus*), Allen's hummingbird (*Selasphoris sasin*), western kingbird (*Tyrannus verticalis*), northern mockingbird (*Mimus polyglottos*), western scrub jay (*Aphelocoma californica*), and common raven (*Corvus corax*). All avian species identified in the BSA during the biological survey are listed in the BRTR (Appendix C) It is possible that many other birds use the BSA either as wintering habitat, seasonal breeding, or as occasional migrants. Species known to occur commonly in the vicinity of the BSA but not observed during the April 2019 survey include California quail (*Callipepla californica*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus branchyrhynchos*), cedar waxwing (*Bombycilla cedrorum*), bushtit (*Psaltriparus minimus*), lesser goldfinch (*Spinus psaltria*), and white-throated swift (*Aeronautes saxitalis*).

Mammals

Generally, the distribution of mammals on a given site is associated with the presence of factors such as access to perennial water, topographical and structural components (e.g., rock piles, vegetation) that provide cover and support prey base, and the presence of suitable soils for fossorial mammals (e.g.,

small mammals in North America. General technical report RM-166. U.S. Forest Service, Rocky Mountain Research Station, Fort Collins, Colorado.

[33] USACE and CDFW. 2010. Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan Joint Environmental Impact Statement and Environmental Impact Report. SCH No. 2000011025.

sandy areas). No mammal species were observed during the biological survey within the BSA. Though not observed, a number of common mammals habituated to urban environments may occur within the BSA, including California ground squirrel (*Otospermophilus beecheyi*), Audubon's cottontail (*Sylvilagus audubonii*), Virginia opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*).

Although bats were not detected in the BSA, they likely forage and roost in the riparian corridors in the region where insect abundance is high.[34] Because this type of foraging habitat does not occur in the BSA, it is unlikely that bats permanently inhabit or forage in significant numbers within the BSA.

4.3.1.4 Special Status Biological Resources

The information gathered from the literature review and field surveys was used to generate a list of special-status natural communities and special-status plant and animal taxa that either occur or may have the potential to occur within the proposed Project area and/or adjacent habitats. For the purposes of this report, special-status taxa are defined as plants or animals that:

- Have been designated as either rare, threatened, or endangered by CDFW or the United States Fish and Wildlife Service (USFWS), and are protected under either the California or Federal Endangered Species Acts (ESA);
- Are candidate species being considered or proposed for listing under these same acts;
- Are recognized as Species of Special Concern by the CDFW;
- Are ranked as CRPR 1, 2, 3 or 4 plant species;
- Are fully protected by the CDFW Code, Sections 3511, 4700, 5050, or 5515; or
- Are of expressed concern to resource/regulatory agencies, or local jurisdictions.

Special Status Natural Communities

Special-status natural communities are defined by CDFW (2009) as, "...communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects." All vegetation within the state is ranked with an "S" rank; however, only those that are of special concern (S1-S3 rank) are generally evaluated under CEQA. No such communities occur within the BSA. The BSA does not occur within an area covered by any Natural Community Conservation Plan and/or Habitat Conservation Plan.

While coast live oak woodland occurs within the BSA, it has a S4 rank which is not generally evaluated under CEQA. The City of Glendale however has an "Indigenous Tree Ordinance" which provides protection for native California tree species, such as coast live oak and scrub oak, that are 6 or more inches in diameter at breast height (dbh) for single trunk trees and eight inches dbh for multitrunked trees. Both of these species occur within the BSA.

[34] CDFW. 2000. "Spotted Bat." California Wildlife Habitat Relationships System California Department of Fish and Game California Interagency Wildlife Task Group.

Designated Critical Habitat

Critical habitat is defined by the USFWS (2018b) as "…a term defined and used in the Endangered Species Act. It is specific geographic areas that contain features essential to the conservation of an endangered or threatened species and that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery."

Critical habitat within ten miles of the BSA is present for Santa Ana sucker (*Catostomus santaanae*), which occurs approximately eight miles to the north and Braunton's milk vetch, which occurs approximately ten miles to the east. Santa Ana sucker (*Catostomus santaanae*) are not expected to occur within the BSA due to lack of suitable habitat and Braunton's milk vetch has a moderate potential to occur within the BSA due to marginal habitat present but the nearest recorded occurrence 10 miles from the BSA.

Special Status Plants

Record searches of the CNDDB, the California Native Plant Society (CNPS) Online Inventory, and the Consortium of California Herbaria (CCH) were performed for special-status plant taxa. Each of the taxa identified in the record searches was assessed for their potential to occur within the BSA based on the following criteria:

- **Present**: Taxa were observed within the BSA during recent botanical surveys or population has been acknowledged by CDFW, USFWS, or local experts.
- **High**: Both a documented recent record (within ten years) exists of the taxa within the BSA or immediate vicinity (approximately five miles) and the environmental conditions (including soil type) associated with taxa presence occur within the BSA.
- **Moderate**: Both a documented recent record (within ten years) exists of the taxa within the BSA or the immediate vicinity (approximately five miles) and the environmental conditions associated with taxa presence are marginal and/or limited within the BSA or the BSA is located within the known current distribution of the taxa and the environmental conditions (including soil type) associated with taxa presence occur within the BSA.
- **Low**: A historical record (over ten years) exists of the taxa within the BSA or general vicinity (approximately ten miles) and the environmental conditions (including soil type) associated with taxa presence are marginal and/or limited within the BSA.
- **Not Likely to Occur**: The environmental conditions associated with taxa presence do not occur within the BSA.

Table 23 presents a list of special-status plants, including federally- and state listed species and CRPR 1-4 species that are known to occur in the vicinity of the BSA. No special-status plant species were observed during any of the reconnaissance-level or focused surveys.

Table 23 Known and Potential Occurrences of Special-Status Plant Taxa within the BSA

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Acanthoscyphus parishii var. *parishii* Parish's oxytheca	4.2	Sandy or gravelly. Chaparral, lower montane coniferous forest. 1,220-2,600m.	Jun-Sep	**Low** Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
Arctostaphylos glandulosa ssp. *gabrielensis* San Gabriel manzanita	1B.2	Chaparral (rocky). 595-1,500 m.	Mar	**Low** Marginal habitat occurs within the BSA; however, the BSA is below the species' known elevation range.
Arctostaphylos parryana ssp. *tumescens* interior manzanita	4.3	Chaparral (montane), cismontane woodland. 2,100-2,310 m.	Feb-Apr	**Low** Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
Arenaria paludicola marsh sandwort	1B.1, FE, SE	Sandy, openings. Marshes and swamps (freshwater or brackish). 3-170m.	May-Aug	**Not Likely to Occur** Suitable habitat is not present within the BSA.
Asplenium vespertinum western spleenwort	4.2	Rocky. Chaparral, cismontane woodland, coastal scrub 180-1,000 m.	Feb-Jun	**Moderate** Suitable habitat occurs within the BSA.
Astragalus brauntonii Braunton's milk-vetch	1B.1, FE	Recent burns or disturbed areas, usually sandstone with carbonate layers. Chaparral, coastal scrub, valley and foothill grassland. 4-640 m.	Jan-Aug	**Moderate** Marginal habitat and disturbed areas occur within the BSA. The nearest recorded occurrence is further than 10 miles from the BSA.
Astragalus pycnostachyus var. *lanosissimus* Ventura marsh milk-vetch	1B.1, FE, SE	Coastal dunes, coastal scrub, marshes and swamps (edges, coastal salt or brackish). 1-35 m.	(Jun) Aug-Oct	**Not Likely to Occur** Suitable habitat is not present within the BSA and the BSA is well below the species' known elevation range.
Atriplex parishii Parish's brittlescale	1B.1	Alkaline. Chenopod scrub, playas, vernal pools. 25-1,900 meters	Jun-Oct	**Not Likely to Occur** Suitable habitat is not present within the BSA. The nearest recorded occurrence is approximately 6.6 miles to the west.
Atriplex serenana var. *davidsonii* Davidson's saltscale	1B.2	Alkaline. Coastal bluff scrub, coastal scrub. 10-200 meters	Apr-Oct	**Not Likely to Occur** Suitable habitat does not occur within the BSA. The nearest recorded occurrence is approximately 6.9 miles to the southwest of the BSA; however, this observation is from well over 20 years ago.

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Berberis nevinii Nevin's barberry	1B.1, FE, SE	Sandy or gravelly. Chaparral, cismontane woodland, coastal scrub, riparian scrub. 70-825 meters	(Feb) Mar-Jun	**High** Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.8 miles to the northeast of the BSA; however, this observation is from well over 20 years ago. The most recent observation is from 2010, approximately 6.0 miles to the southwest of the BSA.
Calochortus catalinae Catalina mariposa lily	4.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. 15-700 meters	(Feb) Mar-Jun	**Moderate** Suitable habitat occurs within the BSA.
Calochortus clavatus var. *gracilis* slender mariposa-lily	1B.1	Chaparral, coastal scrub, valley and foothill grassland. 320-1,000 m.	Mar-Jun (Nov)	**Moderate** Suitable habitat occurs within the BSA. The nearest recorded occurrence is from 2010, approximately 6.7 miles to the west of the BSA.
Calochortus palmeri var. *palmeri* Palmer's mariposa lily	1B.2	Mesic. Chaparral, lower montane coniferous forest, meadows and seeps. 710-2,390 m.	Apr-Jul	**Low** Suitable mesic conditions do not occur within the BSA.
Calochortus plummerae Plummer's mariposa-lily	4.2	Granitic, rocky. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. 100-1,700 m.	May-Jul	**High** Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.6 miles to the south of the BSA; however, this observation is from well over 20 years ago. The most recent observation is from 2011, approximately 8.6 miles to the northwest of the BSA.
Calochortus weedii var. *intermedius* intermediate mariposa lily	1B.2	Rocky, calcareous. Chaparral, coastal scrub, valley and foothill grassland. 105-855 m.	May-Jul	**Moderate** Marginal habitat occurs within the BSA.
Calystegia felix lucky morning-glory	1B.1	Historically associated with wetland and marshy places, but possibly in drier situations as well. Possibly silty loam and alkaline. Meadows and seeps (sometimes alkaline), riparian scrub (alluvial). 30-215 m.	Mar-Sep	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is slightly higher than this species' known elevation range. The nearest and most recent recorded occurrence is approximately 5.9 miles southwest to the southwest of the BSA; however, this observation is from well over 20 years ago.

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Camissoniopsis lewisii Lewis' evening-primrose	3	Sandy or clay. Coastal bluff scrub, cismontane woodland, coastal dune, coastal scrub, valley and foothill grassland. 0-300 m.	Mar-May (Jun)	**Moderate** Marginal habitat occurs within the BSA.
Castilleja gleasoni Mt. Gleason paintbrush	1B.2, SR	Granitic. Chaparral, lower montane coniferous forest, pinyon and juniper woodland. 665-2,170 m.	May-Jun (Sep)	**Low** Marginal habitat occurs within the BSA and the BSA is below this species' known elevation range. The nearest and most recent recorded occurrence is approximately 7.4 miles to the northeast of the BSA; however, this observation is from well over 20 years ago.
Castilleja plagiotoma Mojave paintbrush	4.3	Great Basin scrub (alluvial), Joshua tree woodland, lower montane coniferous forest, pinyon and juniper woodland. 300-2,500 m.	Apr-Jun	**Not Likely to Occur** No suitable habitat occurs within the BSA.
Centromadia parryi ssp. australis southern tarplant	1B.1	Marshes and swamps (margins), valley and foothill grassland (vernally mesic), vernal pools. 0-480 m.	May-Nov	**Not Likely to Occur** No suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 0.8 miles to the southwest of the BSA; however, this observation is from well over 20 years ago. The most recent record in the region is from 1997.
Centromadia pungens ssp. *laevis* smooth tarplant	1B.1	Alkaline. Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland. 0-640 m.	Apr-Sep	**Not Likely to Occur** No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 1.7 miles to the east of the BSA; however, this observation is from well over 20 years ago.
Chorizanthe parryi var. fernandina San Fernando Valley spineflower	1B.1, FPT, SE	Coastal scrub (sandy), valley and foothill grassland. 150-1,220 m.	Apr-Jul	**Low** Marginal habitat occurs within the BSA. The nearest and most recent occurrence is approximately 6.1 miles to the northwest of the BSA; however, this observation is from well over 20 years ago.

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Chorizanthe parryi var. *parryi* Parry's spineflower	2B.2	Sandy or rocky, openings. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. 275-1,220 m.	Apr-Jun	**Moderate** Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the north of the BSA; however, the date of this observation cannot be confirmed. The most recent occurrence for which the date is known is from 1919, approximately 3.8 miles to the northeast of the BSA.
Cladium californicum California saw-grass	2B.2	Meadows and seeps, marshes and swamps (alkaline or freshwater). 60-1,600 m.	Jun-Sep	**Not Likely to Occur** No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 9.9 miles to the east of the BSA; however, this record is from well over 20 years ago.
Clinopodium mimuloides monkey-flower savory	4.2	Streambanks, mesic. Chaparral, north coast coniferous forest. 305-1,800 m.	Jun-Oct	**Not Likely to Occur** No suitable habitat occurs within the BSA.
Convolvulus simulans small-flowered morning-glory	4.2	Clay, serpentinite seeps. Chaparral (openings), coastal scrub, valley and foothill grassland. 30-740 m.	Mar-Jul	**Not Likely to Occur** No suitable habitat occurs within the BSA.
Cuscuta obtusiflora var. *glandulosa* Peruvian dodder	1B.1	Marshes and swamps (freshwater). 15-280 m.	Jul-Oct	**Not Likely to Occur** No suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 9.3 miles to the southeast of the BSA; however, the date of this observation cannot be confirmed.
Diplacus johnstonii Johnston's monkeyflower	4.3	Lower montane coniferous forest (scree, disturbed areas, rocky or gravelly, roadside). 975-2,920 m.	(Apr) May-Aug	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
Dodecahema leptoceras slender-horned spineflower	1B.2, FE, SE	Sandy. Chaparral, cismontane woodland, coastal scrub (alluvial fan). 200-760 m.	Apr-Jun	**Moderate** Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.8 miles to the north of the BSA; however, this record is from well over 20 years ago. The most recent observation is from 2003, approximately 4.5 miles to the northwest of the BSA.

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Dudleya multicaulis many-stemmed dudleya	1B.2	Often clay. Chaparral, coastal scrub, valley and foothill grassland. 15-790 m.	Apr-Jul	**Low** Marginal habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 6.3 miles to the southwest of the BSA; however, this record is from well over 20 years ago.
Frasera neglecta pine green-gentian	4.3	Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. 1,400-2,500 m.	May-Jul	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
Galium angustifolium ssp. *gabrielense* San Antonio Canyon bedstraw	4.3	Granitic, sandy or rocky. Chaparral, lower montane coniferous forest. 1,200-2,650 m.	Apr-Aug	**Low** Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
Galium grande San Gabriel bedstraw	1B.2	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest. 425-1,500 m.	Jan-Jul	**Moderate** Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 7.8 miles to the northeast of the BSA; however, this record is from well over 20 years ago. The most recent record is from 2003, approximately 9.8 miles to the northeast of the BSA.
Galium jepsonii Jepson's bedstraw	4.3	Granitic, rocky or gravelly. Lower montane coniferous forest, upper montane coniferous forest. 1,540-2,500 m.	Jul-Aug	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
Galium johnstonii Johnston's bedstraw	4.3	Chaparral, lower montane coniferous forest, pinyon and juniper woodland, riparian woodland. 1,220-2,300 m.	Jun-Jul	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
Helianthus nuttallii ssp. *parishii* Los Angeles sunflower	1A	Marshes and swamps (coastal salt and freshwater). 10-1,525 m.	Aug-Oct	**Not Likely to Occur** No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 3.6 miles to the southeast; however, this observation is from well over 20 years ago.

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Heuchera caespitosa urn-flowered alumroot	4.3	Rocky. Cismontane woodland, lower montane coniferous forest, riparian forest (montane), upper montane coniferous forest. 1,155-2,650 m.	May-Aug	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
Hordeum intercedens vernal barley	3.2	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), vernal pools. 5-1,000 m.	Mar-Jun	**Not Likely to Occur** No suitable habitat occurs within the BSA.
Horkelia cuneata var. *puberula* mesa horkelia	1B.1	Sandy or gravelly. Chaparral (maritime), cismontane woodland, coastal scrub. 70-810 m.	Feb-Jul (Sep)	**Low** Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.5 miles to the west; however, this record is well over 20 years old. The most recent record is from 1967, approximately 4.7 miles to the northeast of the BSA.
Hulsea vestita ssp. *gabrielensis* San Gabriel Mountains sunflower	4.3	Rocky. Lower montane coniferous forest, upper montane coniferous forest. 1,500-2,500 m.	May-Jul	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
Imperata brevifolia California satintail	2B.1	Mesic. Chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), riparian scrub. 0-1,215 m.	Sep-May	**Not Likely to Occur** No suitable habitat occurs within the BSA.
Juglans californica Southern California black walnut	4.2	Alluvial. Chaparral, cismontane woodland, coastal scrub, riparian woodland. 50-900 m.	Mar-Aug	**Low** Marginal habitat occurs within the BSA; however, this tree was not observed during multiple surveys conducted over several years throughout the BSA.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	1B.1	Marshes and swamps (coastal salt), playas, vernal pools.1-1,220 m.	Feb-Jun	**Not Likely to Occur** No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 1.7 miles to the east; however, this observation is from well over 20 years ago.
Lepechinia fragrans fragrant pitcher sage	4.2	Chaparral. 20-1,310 m.	Mar-Oct	**Moderate** Marginal habitat occurs within the BSA.

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	4.3	Chaparral, coastal scrub. 1-885 m.	Jan-Jul	**Moderate** Marginal habitat occurs within the BSA. The nearest and most recent occurrence is approximately 4.8 miles to the northeast of the BSA; however, this record is from over 20 years ago.
Lilium humboldtii ssp. *ocellatum* ocellated Humboldt lily	4.2	Openings. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland. 30-1,800 m.	Mar-Jul (Aug)	**Moderate** Marginal habitat occurs within the BSA.
Linanthus concinnus San Gabriel linanthus	1B.2	Rocky, openings. Chaparral, lower montane coniferous forest, upper montane coniferous forest. 1,520-2,800 m.	Apr-Jul	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range. The nearest and most recent recorded occurrence is approximately 7.4 miles to the northeast of the BSA from 2003.
Linanthus orcuttii Orcutt's linanthus	1B.3	Openings. Chaparral, lower montane coniferous forest, pinyon and juniper woodland. 915-2,145 m.	May-Jun	**Low** Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
Lupinus peirsonii Peirson's lupine	1B.3	Gravelly or rocky. Joshua tree woodland, lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest. 1,000-2,500 m.	Apr-Jun	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.
Malacothamnus davidsonii Davidson's bush-mallow	1B.2	Chaparral. Cismontane woodland, coastal scrub, riparian woodland. 185-1,140 m.	Jun-Jan	**Moderate** Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 6.9 miles to the northwest of the BSA; however, this record is from well over 20 years ago. The most recent record is from 2018, approximately 8.4 miles to the northeast of the BSA.
Monardella australis ssp. *cinereal* gray monardella	4.3	Lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest. 1,800-3,050 m.	Jul-Aug	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is well below the species' known elevation range.

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Muhlenbergia californica California muhly	4.3	Mesic, seeps and streambanks. Chaparral, coastal scrub, lower montane coniferous forest, meadows and seeps. 100-2,000 m.	Jun-Sep	**Not Likely to Occur** No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 6.3 miles to the northeast; however, this record is from well over 20 years ago.
Nasturtium gambelii Gambel's water cress	1B.1, FE, ST	Marshes and swamps (freshwater or brackish). 5-330 m.	Apr-Oct	**Not Likely to Occur** No suitable habitat occurs within the BSA.
Navarretia prostrata prostrate vernal pool navarretia	1B.1	Mesic. Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools. 3-1,210 m.	Apr-Jul	**Not Likely to Occur** No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 6.6 miles to the southwest; however, this record is from well over 20 years ago.
Opuntia basilaris var. *brachyclada* short-joint beavertail	1B.2	Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. 425-1,800 m.	Apr-Jun (Aug)	**Moderate** Marginal habitat occurs within the BSA.
Orobanche valida ssp. *valida* Rock Creek broomrape	1B.2	Granitic. Chaparral, pinyon and juniper woodland. 1,250-2,000 m.	May-Sep	**Low** Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
Phacelia hubbyi Hubby's phacelia	4.2	Gravelly, rocky, talus. Chaparral, coastal scrub, valley and foothill grassland. 0-1,000 m.	Apr-Jul	**Moderate** Marginal habitat occurs within the BSA.
Phacelia mohavensis Mojave phacelia	4.3	Sandy or gravelly. Cismontane woodland, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland. 1,400-2,500 m.	Apr-Aug	**Low** Marginal habitat occurs within the BSA; however, the BSA is well below the species' known elevation range.
Phacelia stellaris Brand's star phacelia	1B.1	Coastal dunes. Coastal scrub. 1-400 m.	Mar-Jun	**Not Likely to Occur** No suitable habitat occurs within the BSA.
Pickeringia montana var. *tomentosa* woolly chaparral-pea	4.3	Gabbroic, granitic, clay. Chaparral. 0-1,700 m.	May-Aug	**Low** Marginal habitat occurs within the BSA, though suitable substrates are not present.

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Pseudognaphalium leucocephalum white rabbit-tobacco	2B.2	Sandy, gravelly. Chaparral, cismontane woodland, coastal scrub, riparian woodland. 0-2,100 m.	(Jul) Aug-Nov (Dec)	**Low** Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the east of the BSA; however, this record is well over 20 years old. The most recent record is from 1932, approximately 6.9 miles to the northeast of the BSA.
Quercus dumosa Nuttall's scrub oak	1B.1	Sandy, clay loam, closed-cone coniferous forest, chaparral, coastal scrub. 15-400 m.	Feb-Apr (May-Aug)	**Moderate** Marginal habitat occurs within the BSA. The nearest and most recent occurrence is approximately 6.0 miles to the southwest of the BSA; however, this record is well over 20 years old.
Quercus durata var. *gabrielensis* San Gabriel oak	4.2	Chaparral, cismontane woodland. 450-1,000 m.	Apr-May	**Low** Marginal habitat occurs within the BSA; however, this tree was not observed during multiple surveys conducted over several years throughout the BSA.
Quercus engelmannii Engelmann oak	4.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. 50-1,300 m.	Mar-Jun	**Low** Marginal habitat occurs within the BSA; however, this tree was not observed during multiple surveys conducted over several years throughout the BSA.
Ribes divaricatum var. *parishii* Parish's gooseberry	1A	Riparian woodland. 65-300 m.	Feb-Apr	**Low** Limited marginal habitat occurs within the BSA. The nearest recorded occurrence is from within the BSA; however, this observation is from well over 20 years ago. The most recent record is from 1951, approximately 9.9 miles to the southeast of the BSA.
Romneya coulteri Coulter's matilija poppy	4.2	Often in burns. Chaparral, coastal scrub. 20-1,200 m.	Mar-Jul (Aug)	**Moderate** Marginal habitat occurs within the BSA.
Rupertia rigida Parish's rupertia	4.3	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble (pavement) plain, valley and foothill grassland. 700-2,500 m.	Jun-Aug	**Moderate** Marginal habitat occurs within the BSA.

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Scutellaria bolanderi ssp. *austromontana* southern mountains skullcap	1B.2	Mesic. Chaparral, cismontane woodland, lower montane coniferous forest. 425-2,000 m.	Jun-Aug	**Moderate** Marginal habitat occurs within the BSA. The nearest and most recent occurrence is approximately 9.3 miles to the southeast of the BSA, though the date of this record cannot be confirmed.
Senecio astephanus San Gabriel ragwort	4.3	Rocky slopes. Coastal bluff scrub, chaparral. 400-1,500 m.	May-Jul	**Moderate** Marginal habitat occurs within the BSA.
Sidalcea neomexicana salt spring checkerbloom	2B.2	Alkaline, mesic. Chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, playas. 15-1,530 m.	Mar-Jun	**Not Likely to Occur** No suitable mesic habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the north of the BSA; however, this record is from well over 20 years ago. The most recent record is from1920, approximately 6.6 miles to the southwest of the BSA.
Sidotheca caryophylloides chickweed oxytheca	4.3	Lower montane coniferous forest (sandy). 1,114-2,600 m.	Jul-Sep (Oct)	**Not Likely to Occur** No suitable habitat occurs within the BSA and the BSA is well below this species' known elevation range.
Spermolepis lateriflora western bristly scaleseed	2A	Rocky or sandy. Sonoran Desert scrub. 365-670 m.	Mar-Apr	**Not Likely to Occur** No suitable habitat occurs within the BSA.
Symphyotrichum defoliatum San Bernardino aster	1B.2	Near ditches, streams, springs. Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic). 2-2,040 m.	Jul-Nov (Dec)	**Not Likely to Occur** No suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 7.6 miles to the southwest of the BSA; however, this record is from well over 20 years ago.
Symphyotrichum greatae Greata's aster	1B.3	Mesic. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland. 300-2,010 m.	Jun-Oct	**Not Likely to Occur** No suitable mesic habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.6 miles to the south of the BSA; however, this record is from well over 20 years ago. The most recent record is from2014, approximately 7.7 miles to the northeast of the BSA.

Species	Status	Habitat and Distribution	Blooming Period	Potential to Occur*
Thelypteris puberula var. *sonorensis* Sonoran maiden fern	2B.2	Meadows and seeps (seeps and streams). 50-610 m.	Jan-Sep	**Not Likely to Occur** No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 4.3 miles to the northeast of the BSA; however, this record is from well over 20 years ago.

Source: Baldwin et al. 2012; CDFW, 2019a; CNPS, 2019.

* Species listings for which nearest/most recent data are not provided originated from the CNPS database. Metadata is not available for these records.

Status Codes

US Fish and Wildlife Service (Fed.) Designations:

FE: Federally listed, endangered
FT: Federally listed, threatened
FPT: Federally proposed, threatened

California Department of Fish and Wildlife (State) Designations:

SE: State listed, endangered.
ST: State listed, threatened.
SR: State listed, rare

California Rare Plant Rank (CRPR) designation

1A Plants presumed extinct in California.
1B Plants rare, threatened, or endangered in California and elsewhere.
2B Plants presumed extinct in California but more common elsewhere.
3 Plants about which we need more information – a review list.
4 Plants of limited distribution – a watch list.
.1 Seriously threatened in California (high degree/immediacy of threat).
.2 Fairly threatened in California (moderate degree/immediacy of threat).
.3 Not very threatened in California (low degree/immediacy of threats or no current threats known).

Special Status Wildlife

Special-status taxa include those listed as threatened or endangered under the federal or California ESAs, taxa proposed for such listing, Species of Special Concern, and other taxa that have been identified by the USFWS, CDFW, or local jurisdictions as unique or rare and which have the potential to occur within the BSA.

The CNDDB was queried for occurrences of special-status wildlife taxa within the USGS topographical quadrangles in which the BSA occurs and the eight surrounding quadrangles. No special-status taxa were observed or assumed to be present within, or immediately adjacent to the BSA, based on the results of the CNDDB query and 2019 field surveys. A total of 31 taxa known to occur in the general region were reviewed and 22 taxa were determined to have a low, moderate or high potential to occur in the BSA based on existing recorded occurrences, known geographic range, and/or the presence of suitable habitat. **Table 24** summarizes the special-status wildlife taxa known to regionally occur and their potential for occurrence in the BSA. A detailed list of all taxa present in the BSA is included in Appendix C of this

document. Each of the taxa identified in the database reviews/searches were assessed for its potential to occur within the BSA based on the following criteria:

- **Present:** Taxa (or sign thereof) were observed in the BSA or in the same watershed (aquatic taxa only) during the most recent surveys, or a population has been acknowledged by CDFW, USFWS, or local experts.
- **High:** Habitat (including soils) for the taxa occurs onsite and a known occurrence occurs within the BSA or adjacent areas (within five miles of the BSA) within the past 20 years; however, these taxa were not detected during the most recent surveys.
- **Moderate:** Habitat (including soils) for the taxa occurs onsite and a known regional record occurs within the database search, but not within five miles of the BSA or within the past 20 years; or a known occurrence occurs within five miles of the BSA and within the past 20 years and marginal or limited amounts of habitat occurs onsite; or the taxa's range includes the geographic area and suitable habitat exists.
- **Low:** Limited habitat for the taxa occurs within the BSA and no known occurrences were found within the database search and the taxa's range includes the geographic area.
- **Not Likely to Occur:** The environmental conditions associated with taxa presence do not occur within the BSA.

Threatened, Endangered, or Special-Status Invertebrates

No threatened, endangered, or special-status invertebrates were detected in the BSA. While suitable food plants for one CDFW Special Animal, Crotch bumble bee (*Bombus crotchii*), occur within the BSA the most recent recorded occurrence is approximately 4.2 miles to the northeast and is more than 20 years old; this species has a low potential of occurrence within the BSA.

Threatened, Endangered, or Special-Status Fish

No threatened, endangered, or special-status fish species were detected in the BSA. Santa Ana sucker (federally threatened), arroyo chub (*Gila orcuttii* [California Species of Special Concern]), and Santa Ana speckled dace (*Rhinichtys osculus* ssp. 3 [federally threatened and a California Species of Special Concern]), while known from the region, are not expected to occur within the BSA due to the lack of suitable aquatic habitat.

Threatened, Endangered, or Special-Status Reptiles

No threatened, endangered, or special-status reptile species were detected in the BSA. Four California Species of Special Concern, while not observed, have some potential of occurrence within the BSA; southern California legless lizard (*Anniella stebbinsi*), California glossy snake (*Arizona elegans occidentalis*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), coast horned lizard (*Phrynosoma blainvillii*).

Threatened, Endangered, or Special-Status Amphibians

Surveys conducted in the BSA did not detect any threatened, endangered, or special-status amphibians. Southern mountain yellow-legged frog (*Rana mucosa*), federally and state listed as endangered and a federal watchlist species, and coast range newt (*Taricha torosa*), a California Species of Special Concern

are both known from the general region of the BSA; suitable aquatic habitat for these species is not present within the BSA.

Threatened, Endangered, or Special-Status Birds

No threatened, endangered, or special-status bird species were detected in the BSA. The majority of threatened, endangered, or special-status bird species known to occur in the general region of the BSA were determined to have a low or no potential to occur. The federally and state threatened least Bell's vireo (*Vireo bellii pusillus*), state threatened Swainson's hawk (*Buteo swainsoni*) were both determined to have a low potential of occurrence but as a transient only. While limited suitable habitat (coastal sage scrub) is present in the BSA the federally threatened and California Species of Special Concern coastal California gnatcatcher (*Polioptila californica californica*) is not expected to occur on the site; the nearest recorded occurrence is approximately eight miles to the east from over 20 years ago.

Threatened, Endangered, or Special-Status Mammals

Surveys conducted in the BSA did not detect any threatened, endangered, or special-status mammals. A suite of special-status mammals, all California Species of Special Concern or CDFW Special Animals, having the potential to occur in the BSA include (but are not limited to) pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumopos perotis californicus*), San Diego desert woodrat (*Neotoma lepida intermedia*), and American badger (*Taxidea taxus*).

Table 24 Known and Potential Occurrence of Special-Status Wildlife within the BSA

Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	**Common Name**				
Invertebrates					
Bombus crotchii	Crotch bumble bee	**SA**	Coastal California east to the Sierra-Cascade Crest and south into Mexico. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	Suitable food plants occur in the BSA. The nearest and most recent recorded occurrence is approximately 4.2 miles to the northeast of the BSA; however, this observation is from well over 20 years ago.	**Low**
Amphibians					
Rana muscosa	southern mountain yellow-legged frog	**WL, FE, SE**	Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino Mountains (Southern DPS). The Northern DPS was determined to warrant listing as endangered in 2014. Always encountered within a few feet of water. Tadpoles may require 2-4 yrs. to complete their aquatic development.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2009, approximately 3. 9 miles to the northeast of the BSA.	**Not Likely to Occur**

Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	**Common Name**				
Taricha torosa	Coast Range newt	**SSC**	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs & slow-moving streams.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2003, approximately 3.9 miles to the northeast of the BSA.	**Not Likely to Occur**
Fish					
Catostomus santaanae	Santa Ana sucker	**FT**	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2002, approximately 8.4 miles to the north of the BSA.	**Not Likely to Occur**
Gila orcuttii	arroyo chub	**SSC**	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave, and San Diego River basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2015, approximately 8.4 miles to the north of the BSA.	**Not Likely to Occur**
Rhinichthys osculus ssp. 3	Santa Ana speckled dace	**SSC, FT**	Headwaters of the Santa Ana and San Gabriel Rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temps of 17-20° C. Usually inhabits shallow cobble and gravel riffles.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2015, approximately 8.4 miles to the north of the BSA.	**Not Likely to Occur**
Reptiles					
Anniella stebbinsi	southern California legless lizard	**SSC**	Generally south of the transverse range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally, in moist, loose soil. They prefer soils with a high moisture content.	Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 0.4 mile to the north of the BSA; however, this observation is over 20 years ago. The most recent record is from 2018, approximately 6.0 miles to the northwest.	**High**

Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	**Common Name**				
Arizona elegans occidentalis	California glossy snake	**SSC**	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular Ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 4.5 miles to the northwest of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Low**
Aspidoscelis tigris stejnegeri	coastal whiptail	**SSC**	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Ground may be firm soil, sandy, or rocky.	Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 8.7 miles to the northeast of the BSA; however, this observation is was over 20 years ago. The most recent record is from 2015, approximately 9.9 miles to the northwest of the BSA.	**Moderate**
Emys marmorata	western pond turtle	**SSC**	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 1987, approximately 5.0 miles to the northeast of the BSA.	**Not Likely to Occur**
Phrynosoma blainvillii	coast horned lizard	**SSC**	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.4 miles to the northwest of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Moderate**
Birds					
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	**WL**	Resident in southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2014, approximately 8.5 miles to the southwest of the BSA.	**Moderate**

Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	**Common Name**				
Athene cunicularia	burrowing owl	**SSC**	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the east of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Low**
Buteo swainsoni	Swainson's hawk	**ST**	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 1880, approximately 5.5 miles to the southeast of the BSA.	**Low (as a transient)**
Coturnicops noveboracensis	yellow rail	**SSC**	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 1952, approximately 7.0 miles to the southwest of the BSA.	**Not Likely to Occur**
Empidonax traillii extimus	southwestern willow flycatcher	**FE, SE**	Riparian woodlands in southern California.	A small area of marginal habitat occurs within the BSA. The nearest and most recent recorded occurrence is from within the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Low**
Falco peregrinus anatum	American peregrine falcon	**SFP**	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Marginal habitat occurs within the BSA. The nearest and most recent recorded occurrence is from within the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Low**

Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	**Common Name**				
Polioptila californica californica	coastal California gnatcatcher	**SSC, FT**	Obligate, permanent resident of coastal sage scrub below 2,500 ft in southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Limited marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 8.0 miles to the east of the BSA; however, this observation is was over 20 years ago. The most recent record is from 2005, approximately 10.0 miles to the southeast.	**Low**
Riparia riparia	bank swallow	**ST**	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 1894, approximately 0.8 mile to the south of the BSA.	**Not Likely to Occur**
Vireo bellii pusillus	least Bell's vireo	**FE, SE**	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis*, mesquite.	No suitable habitat occurs within the BSA. The nearest recorded occurrence is from within the BSA; however, this observation was over 20 years ago. The most recent record is from 2015, approximately 5.7 miles to the northeast of the BSA.	**Low (as a transient)**
Mammals					
Antrozous pallidus	pallid bat	**SSC**	Desert, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats form high temperatures. Very sensitive to disturbance of roosting sits.	Marginal habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the east of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Low**
Corynorhinus townsendii	Townsend's big-eared bat	**SSC**	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Marginal habitat occurs within the BSA, though ongoing human activities in the area reduce the potential for this species to use the site. The nearest and most recent recorded occurrence is approximately 10.0 miles to the east of the BSA.	**Low**

Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	**Common Name**				
Eumops perotis californicus	western mastiff bat	**SSC**	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 0.70 mile to the southeast of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Moderate**
Lasionycteris noctivagans	silver-haired bat	**SA**	Primarily a coastal and montane forest dweller, feeding over streams, ponds & open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	Marginal habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 3.2 miles to the northwest of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Low**
Lasiurus blossevillii	western red bat	**SSC**	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 10 miles to the east of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Low**
Lasiurus cinereus	hoary bat	**SA**	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Suitable habitat occurs within the BSA. The nearest recorded occurrence is approximately 1.7 miles to the east of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Low**
Lasiurus xanthinus	western yellow bat	**SSC**	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	No suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 2.6 miles to the west of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Not Likely to Occur**

Taxa		Status	Habitat Type	Comments	Occurrence Potential
Scientific Name	**Common Name**				
Neotoma lepida intermedia	San Diego desert woodrat	**SSC**	Coastal scrub of southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Suitable habitat occurs within the BSA. The nearest and most recent recorded occurrence is from 2006, approximately 7.3miles to the west of the BSA.	**Moderate**
Nyctinomops macrotis	big free-tailed bat	**SSC**	Low-lying arid areas in southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	No suitable roosting habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 6.1 miles to the northwest of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Low**
Onychomys torridus ramona	southern grasshopper mouse	**SSC**	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Marginal habitat occurs within the BSA. The nearest and most recent recorded occurrence is approximately 1.8 miles to the east of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Low**
Taxidea taxus	American badger	**SSC**	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Suitable habitat occurs within the BSA. The nearest and most recent occurrence is approximately 2.6 miles to the southwest of the BSA; however, this species has not been observed within 10 miles of the BSA within the last 20 years.	**Moderate**
Federal Rankings: FE = Federally Endangered FT = Federally Threatened			**State Rankings:** SE= State Endangered ST = State Threatened SFP = State Fully Protected SA = CDFW Special Animal WL = CDFW Watch List SSC = Species of Special Concern		

Wildlife Corridors and Special Linkages

Linkages and corridors facilitate regional animal movement and are generally centered in or around waterways, riparian corridors, flood control channels, contiguous habitat, and upland habitat. Drainages generally serve as movement corridors because wildlife can move easily through these areas, and fresh water is available. Corridors also offer wildlife unobstructed terrain for foraging and for dispersal of young individuals.

As the movements of wildlife species are more intensively studied using radio-tracking devices, there is mounting evidence that some wildlife species do not necessarily restrict their movements to some obvious landscape element, such as a riparian corridor. For example, recent radio-tracking and tagging studies of Coast Range newts, California red-legged frogs, southwestern pond turtles, and two-striped garter snakes found that long-distance dispersal involved radial or perpendicular movements away from a water source with little regard to the orientation of the assumed riparian "movement corridor" (Hunt, 1993; Rathbun et al., 1992; Bulger et al., 2002; Trenham, 2002; Ramirez, 2002, 2003a, 2003b). Likewise, carnivores do not necessarily use riparian corridors as movement corridors, frequently moving overland in a straight line between two points when traversing large distances (Newmark, 1995; Beier, 1993, 1995; Noss, et al., 1996; Noss et al., no date). In general, the following corridor functions can be utilized when evaluating impacts to wildlife movement corridors:

- Movement corridors are physical connections that allow wildlife to move between patches of suitable habitat. Simberloff et al. (1992) and Beier and Loe (1992) correctly state that, for most species, we do not know what corridor traits (length, width, adjacent land use, etc.) are required for a corridor to be useful. But, as Beier and Loe (1992) also note, the critical features of a movement corridor may not be its physical traits but rather how well a particular piece of land fulfills several functions, including allowing dispersal, plant propagation, genetic interchange, and recolonization following local extirpation.
- Dispersal corridors are relatively narrow, linear landscape features embedded in a dissimilar matrix that links two or more areas of suitable habitat that would otherwise be fragmented and isolated from one another by rugged terrain, changes in vegetation, or human-altered environments. Corridors of habitat are essential to the local and regional population dynamics of a species because they provide physical links for genetic exchange and allow animals to access alternative territories as dictated by fluctuating population densities.
- Habitat linkages are broader connections between two or more habitat areas. This term is commonly used as a synonym for a wildlife corridor (Meffe and Carroll, 1997). Habitat linkages may themselves serve as source areas for food, water, and cover, particularly for small- and medium-size animals.
- Travel routes are usually landscape features, such as ridgelines, drainages, canyons, or riparian corridors within larger natural habitat areas that are used frequently by animals to facilitate movement and provide access to water, food, cover, den sites, or other necessary resources. A travel route is generally preferred by a species because it provides the least amount of topographic resistance in moving from one area to another yet still provides adequate food, water, or cover (Meffe and Carroll, 1997).

- Wildlife crossings are small, narrow areas of limited extent that allow wildlife to bypass an obstacle or barrier. Crossings typically are manmade and include culverts, underpasses, drainage pipes, bridges, and tunnels to provide access past roads, highways, pipelines, or other physical obstacles. Wildlife crossings often represent "choke points" along a movement corridor because useable habitat is physically constricted at the crossing by human-induced changes to the surrounding areas (Meffe and Carroll, 1997).

Wildlife Movement within the BSA

The BSA is situated in the San Rafael Hills, which functions as an "island" in which patches of native habitat occur surrounded by the heavily developed City of Glendale and the greater Los Angeles area. This relatively small expanse of native habitat and isolation from wider areas of open space would significantly constrain the movement of certain types of wildlife, particularly megafauna, within the San Rafael Hills and by extension, within the BSA. The BSA is characterized primarily by open space; however much of that land is occupied by the SCLF and recreational facilities (baseball field and golf course) that generally lack the cover, presence of refugia, or other characteristics conducive the permanent use of and/or movement through a habitat by many native wildlife species.

Other barriers to terrestrial wildlife movement within the BSA include residential development, fencing, and roadways. There are localized portions of open space occupied by native habitat within the BSA such as the slopes to the north and south of the SCLF. These more open areas likely provide "live-in habitat" for a variety of common species habituated to life in urban environments such as Virginia opossum, raccoon, Audubon's cottontail, California ground squirrel, and other small rodents. Mammalian carnivores are not typically deterred by the open conditions within the landfill areas because they are less dependent on cover. Although some species may use the SCLF for movement, the majority of species have been known to avoid the area and use the more natural adjacent canyons and watersheds. It is likely that the ridgelines on and off the SCLF property would serve as the principal wildlife movement and dispersal corridors for most species found on or in the immediate vicinity of the proposed Project, and species will not need to cross through open, disturbed areas of the SCLF (Sanitation Districts of Los Angeles County and AECOM, 2014).

The Pacific Flyway, a major bird migration route, passes through California from Oregon to the north and Mexico to the south. The proposed Project does not fall within the Pacific Flyway's major or principal bird migration routes.

4.3.2 Laws, Ordinances, Regulations, and Standards

4.3.2.1 Federal

Federal Endangered Species Act

Federal ESA provisions protect federally listed threatened and endangered species and their habitats from unlawful take and ensure that federal actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Under the ESA, "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." The USFWS regulations define harm to

mean “an act which actually kills or injures wild-life.” Such an act “may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering” (50 CFR § 17.3). Critical habitat is defined in Section 3(5)(A) of the ESA as “(i) the specific areas within the geographical area occupied by the species on which are found those physical or biological features (I) essential to the conservation of the species, and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species upon a determination by the Secretary of Commerce or the Secretary of the Interior (Secretary) that such areas are essential for the conservation of the species.” The effects analyses for designated critical habitat must consider the role of the critical habitat in both the continued survival and the eventual recovery (i.e., the conservation) of the species in question, consistent with the Ninth Circuit judicial opinion, *Gifford Pinchot Task Force v. USFWS*. Activities that may result in “take” of individuals are regulated by the USFWS. The USFWS produced an updated list of candidate species December 6, 2007 (72 FR 69034). Candidate species are not afforded any legal protection under ESA; however, candidate species typically receive special attention from Federal and State agencies during the environmental review process.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) makes it unlawful to possess, buy, sell, purchase, barter or “take” any migratory bird listed in Title 50 of the Code of Federal Regulations (CFR) Part 10. “Take” is defined as possession or destruction of migratory birds, their nests or eggs. Disturbances that cause nest abandonment and/or loss of reproductive effort or the loss of habitats upon which these birds depend may be a violation of the MBTA. The MBTA prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary. This act encompasses whole birds, parts of birds, and bird nests and eggs.

Bald and Golden Eagle Protection Act of 1940 (16 USC 668)

The Bald Eagle Protection Act of 1940 (16 USC 668, enacted by 54 Stat. 250) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this Act. Take of bald and golden eagles is defined as follows: “disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior’’ (72 FR 31132; 50 CFR 22.3).

The USFWS is the primary federal authority charged with the management of golden eagles in the United States. A permit for take of golden eagles, including take from disturbance such as loss of foraging habitat, may be required if this Project affects such resources. USFWS guidance on the applicability of current Eagle Act statutes and mitigation is currently under review. On November 10, 2009, the USFWS implemented new rules (74 FR 46835) governing the “take” of golden and bald eagles. The new rules were released under the existing Bald and Golden Eagle Act which has been the primary regulation protection unlisted eagle populations since 1940. All activities that may disturb or incidentally take an eagle or its nest as a result of an otherwise legal activity must be permitted by the USFWS under this act. The definition of disturb (72 FR 31132) includes interfering with normal breeding, feeding, or sheltering

behavior to the degree that it causes or is likely to cause decreased productivity or nest abandonment. If a permit is required, due to the current uncertainty on the status of golden eagle populations in western United States, it is expected permits would only be issued for safety emergencies or if conservation measures implemented in accordance with a permit would result in a reduction of ongoing take or a net take of zero.

Federally Regulated Habitats

Areas meeting the regulatory definition of "Waters of the U.S." (Jurisdictional Waters) are subject to the jurisdiction of the USACE under provisions of Section 404 of the Clean Water Act (CWA) (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as "Waters of the U.S.," tributaries of waters otherwise defined as "Waters of the U.S.," the territorial seas, and wetlands (termed Special Aquatic Sites) adjacent to "Waters of the U.S." (33 CFR, Part 328, Section 328.3). Wetlands on non-agricultural lands are identified using the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). The BSA falls within the South Pacific Division of the USACE and is under the jurisdiction of the Los Angeles District.

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit would be effective in the absence of State water quality certification pursuant to Section 401 of the CWA. As a part of the permit process the USACE works directly with the USFWS to assess potential project impacts on biological resources.

4.3.2.2 State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) establishes State policy to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures. CEQA applies to actions directly undertaken, financed, or permitted by State lead agencies. Regulations for implementation are found in the State CEQA Guidelines published by the Resources Agency. These guidelines establish an overall process for the environmental evaluation of projects.

California Endangered Species Act

Provisions of the California ESA protect State-listed Threatened and Endangered species. The CDFW regulates activities that may result in "take" of individuals ("take" means "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). Habitat degradation or modification is not expressly included in the definition of "take" under the California Fish and Game Code. Additionally, the California Fish and Game Code contains lists of vertebrate species designated as "fully protected" (California Fish & Game Code §§ 3511 [birds], 4700 [mammals], 5050 [reptiles and amphibians], 5515 [fish]). Such species may not be taken or possessed.

In addition to Federal and State-listed species, the CDFW also has produced a list of Species of Special Concern to serve as a "watch list." Species on this list are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Species of Special Concern may receive special attention during environmental review, but they do not have statutory protection.

Birds of prey are protected in California under the State Fish and Game Code. Section 3503.5 states it is "unlawful to take, possess, or destroy any birds of prey (in the order Falconiformes or Strigiformes) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this Code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFW. Under Sections 3503 and 3503.5 of the State Fish and Game Code, activities that would result in the taking, possessing, or destroying of any birds-of-prey, taking or possessing of any migratory nongame bird as designated in the MBTA, or the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds protected by the MBTA, or the taking of any non-game bird pursuant to Fish and Game Code Section 3800 are prohibited.

Native Plant Protection Act (Fish & Game Code 1900-1913)

California's Native Plant Protection Act (NPPA) requires all State agencies to utilize their authority to carry out programs to conserve endangered and rare native plants. Provisions of NPPA prohibit the taking of listed plants from the wild and require notification of the CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that would otherwise be destroyed. The Applicant is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

Sections 3503 & 3503.5 of the Fish and Game Code

Under these sections of the Fish and Game Code, the Applicant is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds-of-prey, taking or possessing of any migratory non-game bird as designated in the MBTA, or the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds protected by the MBTA, or the taking of any non-game bird pursuant to Fish and Game Code Section 3800.

Porter-Cologne Water Quality Control Act

RWQCBs regulate the "discharge of waste" to "waters of the State." All projects proposing to discharge waste that could affect waters of the State must file a waste discharge report with the appropriate regional board. The board responds to the report by issuing waste discharge requirements (WDR) or by waiving WDRs for that project discharge. Both terms "discharge of waste" and "waters of the State" are broadly defined such that discharges of waste include fill, any material resulting from human activity, or any other "discharge." Isolated wetlands within California, which are no longer considered "waters of the United States" as defined by Section 404 of the CWA, are addressed under the Porter-Cologne Act.

State-Regulated Habitats

The State Water Resources Control Board is the State agency (together with the RWQCBs) charged with implementing water quality certification in California. The BSA falls under the jurisdiction of the Los Angeles RWQCB.

The CDFW extends the definition of stream to include “intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams (USGS-defined), and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife” (CDFW, 1994).

Activities that result in the diversion or obstruction of the natural flow of a stream; or which substantially change its bed, channel, or bank; or which utilize any materials (including vegetation) from the streambed, may require that the project applicant enter into a Streambed Alteration Agreement with the CDFW.

4.3.2.3 Local

City of Glendale General Plan – Open Space and Conservation Element

The Open Space and Conservation Element of the City of Glendale General Plan (Glendale 1993) contains policies and programs which are designed to identify and manage natural resources within the City. It provides a broad overview of existing conditions, issues, and opportunities and a comprehensive approach to the management of natural resources.

The Policies relative to natural resources that apply to the BSA are as follows:

Policy 1: Natural resources, including open spaces, biological habitats, and native plant communities should be maintained and, where necessary, restored.

Policy 4: Natural and man-made aesthetic features should be recognized and identified as important natural resources to the community that require proper management.

Policy 5: Proper management of environmental resources, especially natural resources, can assist in reducing hazards to the life and property of the City's residents and should be considered in project planning.

Policy 7: Projects proposed by public agencies, special districts and private developers should demonstrate compliance with the policies, goals and objectives of this element prior to proceeding.

The Goals and Objectives relative to natural resources that apply to the BSA are as follows:

Goal 1: Continue identification, acquisition, and protection of open space land vital to ensure enhancement of the quality of life within the City.

- **Objective 3:** Develop a fee structure for open space acquisition and management in connection with the development review process.

- **Objective 5:** During the environmental and development review processes, on- and off-site impacts of development on open space and related biological and geological systems should be evaluated. Mitigation measures should be applied to alleviate specific impacts through site planning and design modifications that will protect the integrity of valuable open spaces.

Goal 2: Protect vital or sensitive open space areas including ridgelines, canyons, streams, geologic formations, watersheds and historic, cultural, aesthetic and ecologically significant areas from the negative impacts of development and urbanization.

- **Objective 3:** Continue to apply and monitor open space protection measures as part of the environmental and development review processes.

- **Objective 5:** During the environmental and development review processes, on- and off-site impacts of development on open space and related biological and geological systems should be evaluated. Mitigation measures should be applied to alleviate specific impacts through site planning and design modifications that will protect the integrity of valuable open spaces.

Goal 4: Develop a program that sustains the quality of Glendale's natural communities.

- **Objective 2:** Prevent development that jeopardizes or diminishes the integrity and value of native plant and animal communities.

- **Objective 4:** Naturalize, through native revegetation programs, disturbed areas, and prevent the invasion of exotic plant materials.

- **Objective 5:** Encourage the development of landscape plans that incorporate native species in those areas adjoining open space land.

Goal 12: Continue to conserve water resources and provide for the protection and improvement of water quality.

- **Objective 6:** Continue to monitor, inventory land uses and coordinate with the Environmental Protection Agency (EPA) to avoid ground water pollution and improve groundwater quality with particular emphasis on industrial areas and landfills.

City of Glendale Indigenous (Protected) Tree Program

The indigenous oak, bay, and sycamore trees within the city are natural aesthetic resources which help define the character of the city. These trees are worthy of protection in order to preserve the natural environment and to protect the city's native plant life heritage for the benefit of all residents. Oak, bay, and sycamore trees are unique because of their size and beauty and their relative abundance adds distinction and character to certain neighborhoods within the community. It is pertinent to the public interest, health and welfare that these trees be protected from mutilation, indiscriminate cutting, damage, destruction or removal in order to provide for conservation purposes, for counteracting air and noise

pollution and minimizing soil erosion and related environmental damage, as well as for the preservation of the natural beauty which the oak, bay, and sycamore trees lend to the city. It is the intent of this ordinance to create favorable conditions for the preservation of indigenous trees in the community while respecting individual rights to develop, maintain and enjoy private property to the fullest possible extent consistent with the public interest, health and welfare. (Ord. 5719, § 1, 12-7-2010)

Except as provided in sections 12.44.030 and 12.44.060 of the Glendale Municipal Code, a permit shall be required of any person who proposes to cut, remove, encroach upon, or relocate a protected indigenous tree. (Ord. 5719, § 1, 12-7-2010).

4.3.2.4 Other Applicable Plans, Regulations, and Standards

California Native Plant Society Rare Plant Program

The mission of the CNPS Rare Plant Program is to develop current, accurate information on the distribution, ecology, and conservation status of California's rare and endangered plants, and to use this information to promote science-based plant conservation in California. Once a species has been identified as being of potential conservation concern, it is put through an extensive review process. Once a species has gone through the review process, information on all aspects of the species (e.g., listing status, habitat, distribution, threats, etc.) are entered into the online CNPS Inventory and given a California Rare Plant Rank (CRPR). In 2011, the CNPS officially changed the name "CNPS List" to "CRPR." The Program currently recognizes more than 1,600 plant taxa (species, subspecies and varieties) as rare or endangered in California.

Vascular plants listed as rare or endangered by the CNPS, but which might not have a designated status under State endangered species legislation, are defined by the following CRPR:

- CRPR 1A - Plants considered by the CNPS to be extinct in California
- CRPR 1B - Plants rare, threatened, or endangered in California and elsewhere
- CRPR 2 - Plants rare, threatened, or endangered in California, but more numerous elsewhere
- CRPR 3 - Plants about which we need more information – a review list
- CRPR 4 - Plants of limited distribution – a watch list

In addition to the CRPR designations above, the CNPS adds a Threat Rank as an extension added onto the CRPR and designates the level of endangerment by a 1 to 3 ranking, with 1 being the most endangered and 3 being the least endangered. These are described as follows:

- 0.1 – Seriously threatened in California (high degree/immediacy of threat)
- 0.2 – Fairly threatened in California (moderate degree/immediacy of threat)
- 0.3 – Not very threatened in California (low degree/immediacy of threats or no current threats known)

4.3.3 Methodology and Thresholds of Significance

4.3.3.1 Methodology

The analysis below examines the potential impacts to plant and wildlife resources that may occur as a result of implementation of the proposed Project. For the purpose of this assessment, project-related impacts take two forms, direct and indirect. Direct impacts are those that involve the loss, modification or disturbance of natural habitats (i.e., vegetation or plant communities), which in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts also include the destruction of individual plants or wildlife, which is typically the case in species of low mobility (i.e., plants, amphibians, reptiles, and small mammals). The collective loss of individuals in these manners may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and, hence, population stability.

Indirect impacts are those that involve the effects of increases in ambient levels of sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native animals). Indirect impacts may be associated with the construction and/or eventual habitation/operation of a project; therefore, these impacts may be both short-term and long-term in their duration. These impacts are commonly referred to as “edge effects” and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

Operational impacts include both direct and potential indirect impacts to biological resources. Ongoing Operations and Maintenance (O&M) impacts would occur during routine inspection and maintenance of proposed Project components and would include such activities as routine inspection of proposed Project-related facilities and emergency repairs. Operational impacts would also include weed abatement and vegetation management activities including but not limited to mechanical removal or mowing, hand removal, or herbicide treatment. These impacts would remain an ongoing source of disturbance for many plants and wildlife species that occur.

The determination of impacts in this analysis is based on both the proposed Project development and the biological values of the habitat and/or sensitivity of plant and wildlife species to be affected.

The biological values of resources within, adjacent to, and outside the area to be affected by the proposed Project were determined by consideration of several factors, as applicable. These included the overall size of habitats to be affected, the previous land uses and disturbance history, the surrounding environment and regional context, the on-site biological diversity and abundance, the presence of special-status plant and wildlife species, the importance to regional populations of these species, and the degree to which on-site habitats are limited or restricted in distribution on a regional basis and, therefore, are considered sensitive in themselves. Therefore, the focus of this impact analysis is on sensitive plant communities/habitats, resources that play an important role in regional biological systems, and special-status species.

4.3.3.2 Thresholds of Significance

As determined in the Initial Study, the proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. According to the Glendale General Plan, there is no habitat conservation plan or natural habitat community conservation plan in the City. There is, however, a Significant Ecological Area (SEA) program in the City, intended to preserve these designated sensitive areas. The Project site is not located within a SEA. As such, implementation of the proposed Project would not conflict with the SEA program or other Habitat conservation plans. There would be no impact in this regard.

In accordance with Appendix G of the State CEQA Guidelines, the proposed Project would have a significant impact related to biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or USFWS.
- Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
- Conflict with any local polices or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

4.3.4 Project Impacts

Threshold: Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Candidate, Sensitive, or Special-Status Plants

State or federally listed and special-status plant species were not detected within proposed Project impact areas. General botanical surveys of the proposed Project site were conducted in 2015, 2016, 2017, and 2019; focused rare plant surveys were conducted in the spring and summer of 2016. Seasonal rainfall across Southern California in from 2015 – 2017 was extremely limited, which may have reduced the potential to detect sensitive plants within the proposed Project areas. Southern California experienced average to above average rainfall in 2018/2019, which provided ideal conditions for species to occur.

Although the recent droughts may have limited the detectability of some annual plants, plant expression was considered good to excellent in the majority of the proposed Project area that was surveyed.

Direct impacts to listed or special-status plants would include for example, trampling or crushing from heavy equipment, vehicles, or foot traffic, alterations to the native seed bank due to soil compaction, and modifications to existing hydrological conditions. Potential indirect impacts could include the disruption of native seed banks through soil alterations, the accumulation of fugitive dust, increased erosion and sediment transport, and the colonization of non-native, invasive plant species. Excessive dust can decrease or limit plant survivorship by decreasing photosynthetic output, reducing transpiration, and adversely affecting reproductive success. Ground-disturbing activities that would occur during the proposed Project can result in the proliferation and spread of non-native invasive plants to new areas. Because noxious weeds can permanently degrade rare plant and animal habitats, their proliferation could adversely affect listed plant species if they are present.

Operational impacts from routine maintenance and inspection would include trampling or crushing, increased erosion, exposure to fugitive dust, and the spread and colonization of noxious weeds. Listed or special-status plant species were not identified during focused surveys of the proposed Project area.

If present during construction, impacts to listed plant species would be considered significant and require mitigation.

Mitigation Measures

BIO-1: Implement a Worker Environmental Awareness Program.

Prior to any Project activities on the site (i.e., surveying, mobilization, fencing, grading, or construction), a Worker Environmental Awareness Program (WEAP) shall be prepared and implemented by a qualified biologist(s). The WEAP shall be finalized and administered prior to construction mobilization, and implemented throughout the duration of the construction activities, such as when new contractor employees or subcontractors begin working on-site.

- The WEAP shall include, at a minimum, the following items:
    - Training materials and briefings shall include but not be limited to: a discussion of the Federal and State Endangered Species Acts, Bald and Golden Eagle Protection Act, and the Migratory Bird Treaty Act; the consequences of non-compliance with these acts; identification and values of plant and wildlife species and significant natural plant community habitats; hazardous substance spill prevention and containment measures; a contact person and phone number in the event wildlife needs to be relocated or dead or injured wildlife is discovered; and a review of mitigation requirements.
        - A discussion of measures to be implemented for avoidance of the sensitive resources discussed above and the identification of an onsite contact in the event of the discovery of sensitive species on the site; this shall include a discussion on microtrash.
        - Protocols to be followed when roadkill is encountered in the work area or along access roads and the identification of an onsite representative to whom the roadkill will be reported. Roadkill shall be reported to the appropriate local animal control agency within 24 hours.

  - Maps showing the known locations of special-status wildlife, populations of rare plants and sensitive vegetation communities, seasonal depressions and known waterbodies, wetland habitat, exclusion areas, and other construction limitations (e.g. limited operating periods, etc.). These features shall be included on the proposed Project plans and specifications drawings.
  - Literature and photographs or illustrations of potentially occurring special-status plant and/or wildlife species shall be provided to all Project contractors and heavy equipment operators.

- Evidence that all onsite construction and security personnel have completed the WEAP prior to the start of site mobilization. A special hardhat sticker or wallet size card shall be issued to all personnel completing the training, which shall be carried with the trained personnel at all times while on the proposed Project site. All new personnel shall receive this training and may work in the field for no more than five days without participating in the WEAP, accompanied by staff that has undergone the training. A log of all personnel who have completed the WEAP training shall be kept on-site.
- The contract specification books shall include all project conditions as they relate to biological resources and shall be kept on-site at all times (e.g., in the break room, construction foreman's vehicle, construction trailer, etc.) for the duration of the construction. This information shall be easily accessible for personnel in all active work areas.
- Develop a standalone version of the WEAP, that covers all previously discussed items above, and that can be used as a reference for maintenance personnel during Project operations.
- An environmental monitor shall be retained during construction of the proposed project and shall be directly involved with the implementation and enforcement of the WEAP. A log of all personnel who have completed the WEAP training shall be kept on-site.

BIO-2 Implement Best Management Practices

Best Management Practice (BMP) shall be implemented as standard operating procedures during all ground disturbance and construction-related activities to avoid or minimize Project impacts on biological resources. These BMPs shall include, but are not limited to, the following:

- Compliance with BMPs shall be documented and provided in a written report upon conclusion of construction activities. The report shall include a summary of the construction activities completed, a review of the sensitive plants and wildlife encountered, a list of compliance actions and any remedial actions taken to correct the actions, and the status of ongoing mitigation efforts.
- Prior to ground disturbance of any kind, the project work areas shall be clearly delineated by stakes, flags, or other clearly identifiable system.
- Vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas to the extent practicable.
- No vehicles or equipment shall be refueled within 100 feet of an ephemeral drainage or wetland unless a bermed and lined refueling area is constructed. Spill kits shall be maintained on-site.
- All general trash, food-related trash items (e.g., wrappers, cans, bottles, food scraps, cigarettes, etc.) and other human-generated debris shall be stored in animal proof containers and/or removed from the site each day. No deliberate feeding of wildlife shall be allowed.

- All pipes and culverts removed from (that remain on-site after removal) or brought on-site as part of new construction, with a diameter of greater than 4 inches, shall be capped or taped closed. Prior to capping or taping the pipe/culvert shall be inspected for the presence of wildlife by a qualified biologist. If encountered, wildlife shall be allowed to escape unimpeded.
- No firearms shall be allowed on the project site, unless otherwise approved for security personnel.
- To prevent harassment or mortality of listed, special-status species and common wildlife, or destruction of their habitats, no domesticated animals of any kind shall be permitted in any project area.
- Use of chemicals, fuels, lubricants, or biocides shall be in compliance with all local, state and federal regulations, and shall include secondary containment. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation, as well as additional project-related restrictions deemed necessary by the USFWS and CDFW.
- Any contractor or employee that inadvertently kills or injures a special-status animal, or finds one either dead, injured, or entrapped, shall immediately report the incident to the onsite representative identified in the WEAP. The representative shall contact the USFWS, CDFW, and the City of Glendale by telephone by the end of the day, or at the beginning of the next working day if the agency office is closed. In addition, formal notification shall be provided in writing within three working days of the incident or finding. Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to CDFW or USFWS for care, analysis, or disposition.
    - Avoidance of vegetation removal or any other construction activities outside of the proposed Project boundaries. All Project impact areas must be clearly flagged prior to initiating work. In areas of temporary impacts, native vegetation shall be cut to ground level and the root system left intact to permit resprouting following work (unless within required fire clearance areas). All non-native vegetation within the temporary impact area shall be removed initially, and any regrowth eliminated throughout construction, the habitat restoration period and during the O&M phase.
    - Avoidance and minimization of construction activities resulting in impacts to streambeds and banks of any ephemeral drainage.
    - All excavation, steep-walled holes or trenches in excess of 6 inches in depth shall be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth dirt fill or wooden planks. Trenches shall also be inspected for entrapped wildlife each morning prior to onset of construction activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped wildlife. Any wildlife discovered shall be allowed to escape before construction activities are allowed to resume or removed from the trench or hole by a qualified biologist holding the appropriate permits (if required).

BIO-3 Implement Biological Construction Monitoring

Prior to the commencement of ground disturbance or site mobilization activities, the City of Glendale shall retain a qualified biologist(s) to monitor Project construction. The biologist will have demonstrated expertise with special- status plants, terrestrial mammals, reptiles, and birds.

Monitoring will occur continuously during initial ground disturbance for the duration of construction. Once initial ground disturbance is complete, monitoring will occur periodically during all construction activities. The qualified biologist(s) shall be present at all times during ground-disturbing activities immediately adjacent to, or within, habitat that supports populations of listed or special- status species. Any special-status plants shall be flagged for avoidance. Any special-status terrestrial species found within a Project impact area shall be relocated by the authorized biologist to suitable habitat outside the impact area. Surveys for special-status species shall be conducted by the authorized biologist prior to the initiation of construction each day during initial ground disturbance, and weekly thereafter. If nesting birds are found during the pre-construction surveys, buffers shall be installed (as prescribed in Mitigation Measure BIO-5 Conduct Pre-construction Surveys for Nesting and Breeding Birds and Implement Avoidance Measures discussed below.

If, during construction, the biological monitor observes a dead or injured special-status wildlife species on the construction-site, a written report shall be sent to the City of Glendale, CDFW, and USFWS (as appropriate) within five calendar days. The report will include the date, time of the finding or incident (if known), and location of the carcass or injured animal and circumstances of its death or injury (if known). Injured animals will be taken immediately to the nearest appropriate veterinary or wildlife rehabilitation facility. The biological monitor shall, immediately upon finding the remains or injured animal, coordinate with the onsite construction foreman to discuss the events that caused the mortality or injury, if known, and implement measures to prevent future incidents. Details of these measures shall be included with the report. Species remains shall be collected and frozen as soon as possible, and CDFW and USFWS, as appropriate, shall be contacted regarding ultimate disposal of the remains.

BIO-4 Conduct Pre-construction Surveys

Conduct pre-construction surveys for State and federally Threatened, Endangered, Proposed, Petitioned, Candidate, and Special-status Plants and Avoid Any Located Occurrences of Listed Plants or Perform other Conservation Strategy. The City of Glendale shall conduct focused surveys for federal- and state-listed and other special-status plants. All special-status plant species (including listed threatened or endangered species, and all CRPR 1A, 1B, 2, 3, and 4 species) subject to disturbance shall be documented in a pre-construction survey report. Surveys shall be conducted during the appropriate season in all suitable habitat located within the proposed Project disturbance areas and within 100 feet of disturbance areas and access roads and be conducted by a qualified botanist. The field surveys and reporting must conform to current CDFW botanical field survey protocols (CDFW, 2009) or more recent updates, if available. The report will describe any conditions that may have prevented target species from being located or identified, even if they are present as dormant seed or below-ground rootstock (e.g., poor rainfall, recent grazing, or wildfire).

If federally or State-listed plants are detected in disturbance areas or within 100-feet of the disturbance areas, the City of Glendale would avoid these populations and notify the USFWS and CDFW as appropriate.

The City of Glendale shall avoid impacts to any State or federally listed plants to the extent feasible. If Project activities result in the loss of more than ten percent of the known individuals within a

special-status plant species (List 1.B and List 2 only) occurrence/population to be impacted, the City of Glendale shall consult with USFWS and CDFW regarding the most appropriate conservation strategy for the particular species being impacted.

Level of Significance After Mitigation

Implementation of Mitigation Measures BIO-1 (*Implement a Worker Environmental Education Program*), BIO-2 *(Implement Best Management Practices*), BIO-3 (*Implement Biological Construction Monitoring*) would minimize impacts to special-status plant species. These measures include worker education describing the sensitive biological resources that occur on the proposed Project site, implementation of BMPs to minimize and avoid impacts, and conducting biological monitoring during ground- disturbing and other construction-related activities. In addition, implementation of Mitigation Measure BIO-4 (*Conduct Pre-construction Surveys*) would protect occurrences of listed plant species and require compensation for impacts to special-status plant species. Implementation of these mitigation measures would reduce impacts to listed or special-status plants to a less than significant level.

Candidate, Sensitive, or Special-Status Wildlife

Surveys conducted within the proposed Project impact areas in 2015, 2016, 2017, and 2019, did not result in the observation of state or federally listed and special-status wildlife species. Project related impacts to state or federally listed and special-status wildlife species would be as follows:

Special-Status Invertebrates and Reptiles

Construction activities associated with the proposed Project could result in the direct loss of sensitive invertebrates and reptiles. Given the ecology of these species and cryptic nature, it is likely that some or all of the species may occur in or near the proposed Project site. Direct impacts could result from potential mechanical crushing during construction, fugitive dust, and general disturbance due to increased human activity. proposed Project implementation may also result in permanent loss of habitat from the removal of debris piles or trampling of soft friable soils required for burrowing. Indirect impacts could include compaction of soils and the introduction of exotic plant species.

Operational impacts include increased human presence, the spread of noxious weeds due to the use of new or improved access roads, and increased perch sites for avian predators. Inspection and maintenance of the underground gen-tie lines could result in trampling or crushing of small invertebrates and reptiles by vehicular or foot traffic, alterations in topography and hydrology, increased erosion and sedimentation, and the introduction of non-native, invasive plants due to increased human presence.

Special-Status Birds

Construction activities associated with the proposed Project could result in direct and indirect impacts to a variety of sensitive resident and migratory birds. Direct impacts to most listed species are not anticipated because nesting habitat for most listed birds is not present on-site.

Project activities have the potential to impact nesting birds through direct impacts such as ground-disturbing activities associated with excavation of the existing levee, construction of new heightened

levee, and increased human presence. During the breeding season, construction activities could result in the displacement of breeding birds and the abandonment of active nests. Potential indirect impacts could include the deterioration of habitat as a result of the spread of noxious weeds, increased noise levels from heavy equipment and sheet pile installation, exposure to fugitive dust, and human presence during repairs to the levees and floodwalls or routine inspection of the facilities. Weed management could also affect nesting.

During O&M of the proposed Project, impacts to nesting birds would include increased human disturbance, exposure to fugitive dust, the spread of noxious weeds, and disruption of breeding or foraging activity due to routine inspection and maintenance activities. Weed abatement through herbicide application or mechanized tools could also affect nesting.

If project construction were to occur during the avian nesting season (generally considered to be between February 15th through September 15th; although some raptors species may nest as early as January) indirect impacts to nesting birds could occur; the MBTA of 1918 (16 USC 703-711) does not allow for take of migratory birds.

The MBTA makes it unlawful to possess, buy, sell, purchase, barter or “take” any migratory bird listed in Title 50 of the CFR Part 10. “Take” is defined as possession or destruction of migratory birds, their nests or eggs. Disturbances that cause nest abandonment and/or loss of reproductive effort or the loss of habitats upon which these birds depend may be a violation of the MBTA. The MBTA prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary. This act encompasses whole birds, parts of birds, and bird nests and eggs.

Project activities that result in the degradation to habitat for or the loss of endangered, threatened, or other special-status species would be considered a significant adverse impact requiring mitigation.

Special Status Mammals

No special-status mammal species were detected within proposed Project impact areas. The proposed Project area and adjacent habitats have the potential to support a variety of special-status mammals including the American badger and the San Diego desert woodrat, both CDFW Species of Special Concern. Direct impacts to these species would include mechanical crushing by vehicles and construction equipment, trampling, and loss of habitat. Construction disturbance can also result in the flushing of small animals from refugia which increases the predation risk for small rodents. Potential indirect impacts include exposure to fugitive dust, alteration of soils, such as compaction, that could preclude burrowing, the spread of exotic weeds, and increased noise levels.

During O&M of the proposed Project, impacts to sensitive mammals would include increased human disturbance, exposure to fugitive dust, the spread of noxious weeds, and disruption of breeding or foraging activity due to routine inspection and maintenance activities. Weed abatement through herbicide application or mechanized tools could also affect mammal species.

Because the proposed Project would remove or disturb vegetation and these animals would be subject to mortality from the construction of the proposed Project, impacts to these species would be considered significant adverse effects requiring mitigation.

Mitigation Measures

BIO-1 Implement a Worker Environmental Education Program

BIO-2 Implement Best Management Practices (BMPs)

BIO-3 Implement Biological Construction Monitoring

BIO-5 Conduct Pre-construction Surveys for Nesting and Breeding Birds and Implement Avoidance Measures

Prior to construction activities (i.e., mobilization, staging, grading, or construction) the City of Glendale shall retain a qualified avian biologist to conduct pre-construction surveys for nesting birds within the recognized breeding season in all areas within 500 feet of all proposed Project components (i.e., pipelines, staging areas, and access road locations). Surveys for raptors shall be conducted for all areas from January 1 to August 15. The required survey dates may be modified based on local conditions, as determined by the qualified avian biologist, in coordination with CDFW and USFWS. Measures intended to exclude nesting birds shall not be implemented without prior approval by CDFW and USFWS.

If breeding birds with active nests are found prior to or during construction, the qualified avian biologist shall establish a 300 foot buffer (500 foot for raptors) around the nest and no activities will be allowed within the buffer(s) until the young have fledged from the nest or the nest fails.

The prescribed buffers may be adjusted by the qualified avian biologist in coordination with the USFWS and/or CDFW based on existing conditions around the nest, planned construction activities, tolerance of the species, and other pertinent factors. The qualified avian biologist shall conduct regular monitoring of the nest to determine success/failure and to ensure that Project activities are not conducted within the buffer(s) until the nesting cycle is complete or the nest fails. The avian biologist shall be responsible for documenting the results of the surveys, nest buffers implemented, and the results of ongoing monitoring and will provide a copy of the monitoring reports for impact areas to the City of Glendale.

Surveys shall be conducted to include all impact areas on the proposed Project site as well as all construction equipment. If birds are found to be nesting in facility structures or construction equipment and the nests contain eggs or young, buffers as described above shall be implemented.

If trees with nests are to be removed as part of Project construction activities, this will be done outside of the nesting season to avoid additional impacts to nesting raptors. If removal during the nesting season cannot be avoided, all trees will be inspected for active nests by the avian biologist. If nests are found within these trees and contain eggs or young, no activities within a 300-foot buffer for nesting birds and/or a 500-foot buffer for nesting raptors shall occur until the young have fledged the nest.

BIO-6 Conduct Surveys for Terrestrial Herpetofauna and Implement Monitoring, Avoidance, and Minimization Measures

Prior to ground disturbance or vegetation clearing at all Project locations, the City of Glendale shall retain a qualified biologist to conduct surveys for terrestrial herpetofauna where suitable habitat is present and directly impacted by construction vehicle access. Focused surveys shall consist of a minimum of three daytime surveys and one nighttime survey within one week of vegetation clearing. The qualified biologist will be present full time during all vegetation removal activities immediately adjacent to or within habitat that supports terrestrial herpetofauna, and part time for all remaining activities. Surveys for terrestrial herpetofauna shall be conducted by the qualified biologist prior to the initiation of each day of vegetation removal activities in suitable habitat. Terrestrial herpetofauna found within the area of disturbance or potentially affected by the proposed Project will be relocated to the nearest suitable habitat that will not be affected by the proposed Project.

Level of Significance After Mitigation

To reduce impacts to special-status wildlife, the City of Glendale would implement Mitigation Measures BIO-1 (Implement a Worker Environmental Education Program), BIO-2 (Implement Best Management Practices), BIO-3 (Implement Biological Construction Monitoring), BIO-5 (Conduct Pre-construction Surveys for Nesting and Breeding Birds and Implement Avoidance Measures), and BIO-6 (Conduct Surveys for Terrestrial Herpetofauna and Implement Monitoring, Avoidance, and Minimization Measures). These measures include worker education describing the sensitive biological resources that occur on the proposed Project site, implementation of BMPs to minimize and avoid impacts, conducting pre-construction nesting bird and herpetofauna surveys, and conducting biological monitoring during ground-disturbing and other construction-related activities. Implementation of these mitigation measures would reduce impacts to special-status wildlife to a less-than-significant level.

Threshold: Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Wildlife Service?

Riparian Habitats and Sensitive Natural Communities

Construction of the proposed Project would result in 8.01 acres of permanent and 2.06 acres of temporary disturbance to vegetation communities and land cover types including annual brome grassland, black sage scrub, California buckwheat scrub, California sagebrush scrub, California sagebrush-California buckwheat scrub, chamise chaparral, coast live oak woodland, fountain grass swards, laurel sumac scrub, developed/disturbed, and ornamental woodland. Proposed Project impacts to vegetation communities and land cover types are shown in Table 25. Just over 96%Just over 96 percent of these impacts would be to non-native communities or developed/disturbed lands. The vast majority of these impacts are directly related to fire department vegetation clearance requirements within the vicinity of the proposed Project. Permanent impacts to native vegetation would be limited to 0.22 acres of California sagebrush-California buckwheat scrub and 3.21 acres of Laurel Sumac Scrub.

Table 25 Proposed Project Impacts to Vegetation Communities and Land Cover Types

Vegetation Community / Land Cover Type		Total Acres in Survey Area		Project Impacts			
2019 Survey	2017 Survey	2019 Survey (Acres)	2017 Survey (Acres)	2019 Survey (Acres)*		2017 Survey (Acres)	
				Temp	Perm	Temp	Perm
Annual Brome Grassland	--	10.48	--	0.22	0.80	--	--
Black Sage Scrub	California Encelia-Black Sage Scrub	8.0	5.67	--	--	--	--
California Buckwheat Scrub	--	1.75	--	--	--	--	--
California Sagebrush Scrub	California Sagebrush Scrub	0.44	0.31	--	--	--	--
California Sagebrush-California Buckwheat Scrub	California Buckwheat Scrub	2.84	7.11	--	0.22	0.02	0.29
Chamise chaparral	Scrub Oak - Chamise Chaparral	4.82	2.40	--	--	--	--
Coast live oak woodland	Coast live oak woodland	2.95	1.3	0.00	--	--	--
Fountain Grass Swards	--	14.49	--	0.34	0.03	--	--
Laurel Sumac Scrub	Lauren Sumac Chamise Scrub	70.57	50	0.16	3.21	0.09	0.39
Developed / Disturbed	Cleared / Developed	87.18	86.75	0.91	3.73	1.13	1.45
Ornamental Woodland	Ornamental/ Non-Native	31.75	39.14	0.42	0.03	0.92	0.06
	Total	**235.27**	**192.68**	**2.06**	**8.01**	**2.16**	**2.19**

*These acreages include impacts related to updated Fire Department brush clearance requirements not required as part of the 2017 impact acreage calculations.

Construction of the proposed Project would remove vegetation, alter soil conditions, and potentially result in the loss of native seed banks. Construction activities could also result in the spread of noxious weeds within the proposed Project site and adjacent habitats. Vehicle travel on access roads and paved streets could result in increased fugitive dust to native vegetation in adjacent areas. Wind-blown dust can degrade soils and vegetation over a wide area (Okin et al., 2001). Dust can have deleterious physiological effects on plants and may affect their productivity and nutritional qualities (Sharifi et al., 1997). Fugitive dust can kill plants by burial and abrasion, interrupt natural processes of nutrient accumulation, and allow the loss of soil resources. The destruction of plants and soil crusts by windblown dust exacerbates the erodibility of soil and accelerates the loss of nutrients (Okin et al., 2001).

Operational impacts would occur during routine inspection and maintenance of the proposed Project components. These impacts could include trampling or crushing of native vegetation by foot traffic, alterations in topography and hydrology, increased erosion and sedimentation, and the introduction of non-native, invasive plants due to increased human presence on foot or equipment.

While not considered a sensitive community for the purposes of CEQA, coast live oak and scrub oak are protected under the City of Glendale's "Indigenous Tree Ordinance." Depending on the dbh of the impacted trees a permit and replacement trees may be required. The City of Glendale would be required to seek a permit for impacts to protected trees to comply with the "Indigenous Tree Ordinance."

Because of their suitability to support several special-status species, the loss of and impacts to native habitat associated with the proposed Project would be considered a significant adverse impact for which mitigation would be required (Class II).

Mitigation Measures

BIO-1 Implement a Worker Environmental Education Program

BIO-2 Implement Best Management Practices (BMPs)

BIO-3 Implement Biological Construction Monitoring

BIO-7 Vegetation Removal and Replacement

Construction activities shall be done in such a manner as to minimize the removal of native vegetation. If impacts to native vegetation removal cannot be avoided, all temporarily impacted plant communities shall be restored at a mitigation ratio of 1:1; permanent impacts to native communities shall be restored/mitigated at a 2:1 ratio. Sensitive communities, including jurisdictional wetlands, shall be restored/replaced at a mitigation ration of 2:1 for all temporary and 3:1 for all permanent impacts. The compensation for the loss of habitats may be achieved either by a) on-site habitat creation or enhancement of impacted communities with similar species compositions to those present prior to construction, b) off-site creation or enhancement of California sycamore woodlands and southern riparian scrub communities, or c) participation in an established mitigation bank program.

Prior to the removal of native vegetation, if on or off-site mitigation is required, a Habitat Mitigation and Monitoring Plan shall be prepared that will guide all restoration and monitoring activities. This plan shall include, at a minimum, the following:

- Proposed species list for creation/enhancement;
- Planting/seeding methodology;
- Irrigation plan;
- Weeding schedule;
- Success criteria;
- Monitoring methodology and schedule; and
- Reporting requirements.

Level of Significance After Mitigation

Implementation of Mitigation Measures BIO-1 (*Implement a Worker Environmental Education Program*), BIO-2 (*Implement Best Management Practices*), BIO-3 (*Implement Biological Construction Monitoring*), and BIO-7 (*Vegetation Removal and Replacement*) would minimize impacts to sensitive or protected communities. These measures include worker education describing the sensitive biological resources that occur on the proposed Project site, implementation of BMPs to minimize and avoid impacts, and conducting biological monitoring during ground- disturbing and other construction-related activities. Implementation of these mitigation measures would reduce impacts to listed or special-status plants to a less than significant level.

Threshold: Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

A formal delineation of jurisdictional wetlands, other "waters of the U.S.," waters of the State, and CDFW jurisdictional waters was not conducted; however, during reconnaissance level surveys potentially jurisdictional features were mapped and are presented on Figure 3 in Appendix C of this document. The project has been designed such that all gas and water pipelines would be installed overhead or below all potentially jurisdictional features.

Should they occur, direct impacts to federal non-wetland Waters of the U.S. and CDFW jurisdictional waters could include the removal of native vegetation, the discharge of fill, degradation of water quality, and increased erosion and sediment transport. Potential indirect impacts could include alterations to the existing topographical and hydrological conditions and the introduction of non-native, invasive plant species. Operational impacts to wetland habitats would be similar to direct and potential indirect impacts.

As required by law, the City would comply with the regulations regarding conducting Project activities in water courses and habitats under the jurisdiction of the State and federal government. Therefore, the City would obtain required permits pursuant to Section 401 and 404 of the CWA, the State Porter- Cologne Act, and Fish and Game Code Section 1605. Due to the importance of jurisdictional habitats and ephemeral/perennial drainages and their suitability to support special-status species, the loss of these habitats associated with the proposed Project would be considered a significant adverse impact requiring mitigation.

Mitigation Measures

BIO-1 Implement a Worker Environmental Education Program

BIO-2 Implement Best Management Practices (BMPs)

BIO-3 Implement Biological Construction Monitoring

Level of Significance After Mitigation

Implementation of Mitigation Measures BIO-1 (*Implement a Worker Environmental Education Program*), BIO-2 (*Implement Best Management Practices*), and BIO-3 (*Implement Biological Construction Monitoring*) would minimize impacts to potentially jurisdictional features. These measures include worker education describing the sensitive biological resources that occur on the proposed Project site, implementation of BMPs to minimize and avoid impacts, and conducting biological monitoring during ground- disturbing and other construction-related activities. Implementation of these mitigation measures would reduce impacts to potentially jurisdictional features to a less than significant level.

Threshold: Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Wildlife Movement and Migratory Corridors

Studies suggest that habitat fragmentation and isolation of natural areas ultimately results in the loss of native species within those communities (Soulé et al., 1988). The ability for wildlife to move freely among populations is important to long-term genetic variation and demography. Fragmentation and isolation of natural habitat may cause loss of native species diversity in fragmented habitats. In the short term, wildlife movement may also be important to an animal's ability to occupy home ranges, if a species range extends across a potential movement barrier. These considerations are especially important for rare, threatened, or endangered species, and wide-ranging species such as large mammals, which exist in low population densities.

Direct impacts resulting from the construction of the proposed Project include the placement of physical structures such as pipelines. Ground- disturbing activities would be expected to interfere with terrestrial wildlife movement during construction of the proposed Project. The Project could also affect wildlife in adjacent habitats by interfering with movement patterns or causing animals to temporarily avoid areas adjacent to the construction zone. More mobile species such as birds and larger mammals would likely disperse into adjacent habitat areas during ground disturbing activities.

Potential indirect impacts include human disturbance, colonization or expansion of invasive weeds, and vehicle traffic. Operational impacts would be the same as described for direct and potential indirect impacts.

Construction activities may temporarily limit terrestrial wildlife movement within the proposed Project area; however, the broad geographic range and habitat that occurs in the region would remain available to wildlife. The Project would not substantially interfere with the movement of any native resident or migratory fish, reptile, or amphibian species. Existing barriers to movement (i.e., landfill and associated structures) and surrounding land uses (i.e., residential and recreational) currently constrain or limit movement in the proposed Project area.

There are no known bird or bat migratory corridors that would be directly impeded by the proposed Project. Large concentrations of migrants are not known to utilize any specific portion of the proposed Project site and Project activities are not expected to preclude use of the area. Migrating birds would have access to native habitat communities within adjacent areas. Although species would be disrupted during

certain activities, impacts to wildlife movement and migratory corridors from the proposed Project would not be significant.

Threshold: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation ordinance?

Local Policies and Ordinances

The City has an "Indigenous Tree Ordinance" which provides protection for native California tree species, such as coast live oak and scrub oak, that are six or more inches in dbh for single trunk trees and eight inches dbh for multitrunked trees. While both of these species occur within the BSA, neither of the protected species are within the impact areas of the proposed Project, therefore, there would be no impact.

4.3.5 Cumulative Impacts

The majority of construction related impacts to sensitive wildlife, sensitive plants, and jurisdictional waters would be temporary and indirect. Operational impacts would not result in additional impacts. There are no known bird or bat migratory corridors that would be directly impeded by the proposed Project. Large concentrations of migrants are not known to utilize any specific portion of the proposed Project site and construction and O&M activities are not expected to preclude use of the area. Migrating birds would have access to suitable habitat within the adjacent areas. Although species would be disrupted during certain activities, impacts to migratory corridors from the proposed Project would not be significant. Impacts to sensitive wildlife, sensitive plants, jurisdictional waters and wildlife corridors, when combined with past, present, and probable future projects, would not be cumulatively considerable.

However, the proposed Project would result in minimal direct impacts to native vegetation known to support-special status plants and wildlife including San Diego desert woodrat, southern California legless lizard, and coast horned lizard. The majority of potential impacts would be temporary and indirect in nature. Although impacts to native habitat (coast live oak woodland and California sagebrush – California buckwheat scrub) as part of the proposed Project would be minimal, because of the overall loss of these communities within California, and their suitability to support several special- status species, the loss of this habitat when combined with past, present, and probable future projects would be a cumulatively significant impact.

Implementation of Mitigation Measures BIO-1 through BIO-6 would reduce the proposed Project's contribution of cumulative impacts. These measures include worker education describing the sensitive biological resources that occur on the proposed Project site, implementation of BMPs to minimize and avoid impacts, pre-construction surveys, nesting bird buffer protocols, and conducting biological monitoring during ground-disturbing and other construction-related activities. Implementation of these mitigation measures would reduce the proposed Project's contribution to cumulative impacts such that they would not be cumulatively considerable.

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